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THE GIFT OF

EDWIN FRANCIS GAY
LL.D. 1918
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November 1, 1919

THE

Modern Husbandman,

OR, THE

PRACTICE of FARMING.

VOL. III.

CONTAINING,

The Months of *July*, *Auguſt*, and *September*.

By WILLIAM ELLIS,

A Farmer, of *Little Gaddeſden*, near *Hempſtead*, in *Hertfordſhire*.

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THE

THE
MODERN HUSBANDMAN,
FOR THE
Month of *JULY.*

IN my laſt Book for June, *I have been more particular in deſcribing the ſeveral Sorts of Ploughs and other Inſtruments commonly made uſe of in that Month in different Counties and Soils, than any Author before ever did, as being the chiefeſt Article in Husbandry; for though the Soil and Seed be good, the Manure plenty, and all other Contingencies compleatly furniſhed; yet, if the Plowing Part is not rightly timed and performed by a good Workman, the Return of Corn and other Vegetables will, in courſe, be the leſs at Harveſt. Now, as I have for ſome Years travelled through various Parts of* Great Britain, *for informing my Judgment in the Science of Agriculture,* &c. *while my Buſineſs at Home was done by my three Sons, I ſhall endeavour to make good my Title of the* Modern Huſbandman, *and ſhew the Practice of Plough and Meadow Farmers in both Vale and Chilturn Lands, as it is now carried on in the moſt profitable Manner; beſides the Management of my own Farm for above Four and Twenty Years,* viz.

CHAP I.

Of Plowings neceſſary to be performed in this Month, in different Soils.

PLOWINGS in the Vale of Ayleſbury, *preparatory for a Crop of Wheat.* In Vale Ridge whole and half Acre Lands that are compoſed of a blackiſh clayey Loam, as moſt of them are, they generally plow but three Times for a Crop of Wheat. In *April* they begin to fallow, by ridging up with the Foot-Plough; and, in the laſt of this Month, they make their firſt Stirree or ſecond Plowing, by ridging up the ſame Land again; and about *Michaelmas* they plow a third Time, and ſow their Wheat in a Manner I ſhall then write of. When they fallow here (eſpecially if the Ground is hard cruſted) ſome fix a Wooden or Iron Foot at the Fore-end of the Plough, to keep the Share from entering too deep, and thereby make it the more eaſy for the Horſes to draw; beſides which, if a dry Summer ſucceeded a deep Fallow-plowing, at Stirree Time the Earth will turn up like Brickbats; then, if very wet Weather ſucceed, it will lodge the Water and next Time plow up like Dung; therefore a Workman will plow neither too deep, nor too ſhallow, in Fallow Time. But in caſe you are obliged to plow while the Ground is wet, the more judicious Farmer will only plow the Ridge Part of the Land, and leave the Declivities on each Side to plow when it is dryer; for, if you plow all the Land while it is ſuggy wet at the Fallow Seaſon, it will lie in Blocks at Stirree Time, and be much deprived of that Sweetneſs and Fineneſs which are perfectly neceſſary towards obtaining a good Crop of Wheat.

When

When the Ploughman would make this Plough turn a deep Thorough or Furrow, he preſſes on the Plough-ſtaff with one Hand, and Holds the Plough-handle a little up with the other, contrary to what muſt be done for this Purpoſe with the two-wheel Plough; for, if you will have this to plow deep, the Plough-boy muſt bear the Weight of his Body on the Plough-Beam juſt over the Share-Point.

Plowing Vale Lands for Barley. In this Month make your firſt Stirree for Barley, by ridging the Land up. The ſecond Stirree is to be performed about *Michaelmas* by ridging up again, and in *March* following they plow and ſow, by caſting down the Land. Theſe with the firſt, or Fallow-plowing in *April*, make four Plowings in all for a Barley Crop, which not only creates a great deal of Charge of Labour and Manure to the Farmer, but he is obliged to wait near two Years before he can mow off a Crop of Barly, and then it too often turns out a poor one, if Part of his Lands has ſuffered by Floods and Inundations, or by extreme Droughts, *&c.*

Plowings in Chilturn Fields, preparatory for a Wheat Crop. Now make your ſecond or third Stirree; if your Land is of the ſtiff Sort, the firſt Stirree, or ſecond Plowing for a Wheat Crop, ſhould have been perform'd the latter End of *May*, or in *June*; but if it is a light Land, it may be done the Beginning of this Mouth: Alſo, in ſuch light Land, ſome, for the ſake of enjoying their Clover, Treyfoil, or Ray-graſs as long as they can, will let it lie 'till this Month before they plow it up, in order to give it one or two Plowings more before *October*, for ſowing the ſame Ground with Wheat. But, if ſuch late Management is made uſe of in ſtiff Land, you will run a great Riſque of getting it into a timely Tilth for this Purpoſe; for I have known ſeveral loſe great Part of their Crop by ſuch

Dilatorineſs, eſpecially when this Part of the Summer is attended with frequent Rains. In this Month make new ſingle Bouts of your laſt ſingle Bouts, for this is an excellent Method to reduce a ſurly ſtiff Clay or Loam into a powder'd Tilth, and thus the Earth lies ready for Thoroughing down, or Back-bouting, at the next Plowing after Harveſt, which, when harrowed plain, is fit for plowing and ſowing Wheat in the ſame. Others in this Month plow their four-thorough Ridge-Lands into four-thorough Lands again, as a ſecond Stirree. Both which Ways of ſingle Bouting up, and Four Thoroughing of Land, are the beſt of all others, and are in general Practice in *Hertfordſhire* and moſt other Chilturn Countries, as the moſt expeditious Method to prepare ſtiff Soils ready for ſowing Wheat in them. Others will in this Month plow ſuch Soils by hacking or combing them, ſometimes off broad Land, and ſometimes croſs the laſt Hacks for the ſame Purpoſe. But in lighter Grounds, the broad-land Plowing is moſt in Uſe; and ſometimes they plow them in Hacks, becauſe ſome of this Sort of Earths are better got into a Tilth at one Plowing, than the ſtiffer Soils are with two. For performing theſe different Operations, there are ſeveral Sorts of Ploughs made uſe of; as the two-wheel Fallow-Plough, the two-wheel Peaſtitch-Plough, the two-wheel Bobtail Plough, the two-wheel Jockey-Plough, the two-wheel Woodchip-Plough, the one-wheel *Glouceſterſhire* Plough, the one-wheel Under-cheek, the one-wheel Over-cheek Plough, and the two-wheel Tun-riſe Plough. There is alſo a Foot-Plough in Uſe with ſome Chilturn Farmers, that has a pecked Bobtail-Share, or a pecked Socket-Share, that will plow Ground very well, where it is not too ſtony, too dry, or otherwiſe too hard; and that in any Shape, eſpecially where the Land has been once plowed before, and

is

is moiſt. This Foot-Plough, by the Help of a Fin on its Share, may be made to plow very ſhallow and clean, and therefore the beſt of all other Ploughs for plowing in Peaſe, Beans, Thetches, Wheat, Barley, *&c.* under Thorough, and is eaſier drawn by one Horſe's Draught, than three or four, becauſe it makes a leſſer or narrower Thorough than the Wheel-Plough, which often buries and loſes great Part of a Crop of Grain by its deep plowing the Ground, as I am, by a particular Caſe, going to ſhew.

How a Farmer, by a right Way of Plowing, got good Crops of Grain, where there had not been ſuch in the Memory of Man. One of my Acquaintance, a Farmer that lived in *Aylesbury* Vale, took a Farm in the Chilturn, or hilly Country, about thirty Miles diſtant from *London*, Part of which was never known to have a good Crop on it in the Memory of Man, becauſe the former Tenants had always plowed the Ground in very large Thoroughs, with the two-wheel Fallow-Plough, which did not ſufficiently deſtroy the Weeds, nor ſweeten the Ground. To remedy this, the new Comer got a Foot-Plough, with a pecked Share-Point, and plowed the Land into very narrow Thoroughs, killed the Weeds, ſweeten'd and brought the Soil into a fine Tilth in a little Time, by which, with good Dreſſing, he enjoy'd plentiful Crops at Harveſt; though it was ſuch ſtony Ground as made another ſay to him, *Fear not, if the Stones are big enough, you will get a good Crop.* For, when they are ſmall, round, blue Pebbles, it is a ſure Sign of a very hungry poor Soil. However, as I have mentioned the Benefit of the Foot-Plough in Chilturn Lands, I ſhall here alſo ſhew its Diſadvantages in ſuch Soils. In dry Weather, and in a hard Surface, it will not enter the Ground ſo readily, nor plow ſo deep as the Wheel-Plough can; and at all Times is eaſier thrown out

of

of its Work than the Wheel-Plough, either by the Oppoſition of Stones, or by the Phill or Fore-Horſe's going aſide; it is alſo apt to dip down at its Head, and more if a Foot of Wood or Iron is not fixed into it.

How a Perſon got poor, and was forced to ſell his Land for want of plowing it deep enough. This Man lived at *High-ſtreet Green* in *Hertfordſhire*, and kept but two Horſes in all for plowing the little Land he was Owner of. Theſe being not able to draw the Plough deep enough, to extirpate the Roots of Weeds, and to give the Earth a fine looſe Bottom for the Roots of Corn to enter eaſily; his Ground ſeldom return'd above half Crops, which ſo impoveriſhed him, that he was forced to ſell ſome of his Land: Accordingly he ſold a Field of eight Acres, which, after the Buyer had plowed it with a ſtrong Team of Horſes, and made the Share of the two-wheel Fallow-Plough enter deep into the Ground, it turned up ſuch a freſh Parcel of Earth, that he had forty Buſhels of Wheat from off one Acre, the very firſt Crop, that, when the whole was ſold, the Sum amounted to near the Value of the Land. Theſe are plain Inſtances of the great Advantages attending the true Knowledge of plowing Ground in a right Manner.

Plowing about Acton *and* Edgware, *in* Middleſex, *for Wheat.* Here many of their Fields lie low and ſwampy, but generally have a Staple of good black, or Haſle Mould, on a red or yellow Clay-bottom, which ſeems to be a Situation, and a Soil, between Vale and Chilturn Grounds, and therefore is plowed and otherwiſe managed in a different Manner from either of them. About *Acton* they fallow in three Bout-lands, with a Swing-Plough; and when they make their firſt Stirree in *June*, they plow their three Bout-lands back again, and leave, as uſual, the Ridge where the Thorough, or Henting, was before,

before. Next Time, in this Month, they commonly plow their Bout-lands croſs-ways, without any Harrowing before, into flat Broad-lands, and in this Poſture they let it lie 'till the latter End of *Auguſt*, or a Month or three Weeks before Sowing-time; when they make uſe of their great Drag-Harrow, containing ſeven large Wooden Beams, that has ſeven Tines of Iron in each Beam, drawn by eight, nine, or ten Horſes, but with never leſs than eight; with this they harrow the Ground long-ways level, and, if it is foul, and won't eaſily break, they harrow it croſs again. At Sowing-ſeaſon they plow croſs the laſt Broad-lands, and ſow Wheat in four Bout-lands, by ſowing it Broad-caſt before the Plough, and plowing it under Thorough; and yet little or no Seed remains in their large Water Furrows, becauſe, in the finiſhing of every Bout-land, they gather it by the Plough, elſe the Waters would chill and kill it. About *Edgware* they plow five Times in all for a Crop of Wheat, and ſow it as they call them in their Size-lands, that is, in four or ſix Bout-lands, and uſe a ſmaller Drag-Harrow than thoſe of *Acton* drawn by five Horſes only: Here alſo they do their Work with the Swing-Plough; but about *Rickmanſworth*, *Weſt-Hyde*, and the adjacent Parts, they plow with the two-wheel Woodchip-Plough, which is a Sort between the Foot and the Wheel *Hertfordſhire* Plough, aad therefore they uſe it here to make three or four Bout-lands, in ſuch Ground that lies neither too wet nor too dry.

How ſeveral of the Middleſex *Farmers are wrong in not making uſe of the Woodchip-Plough.* It is certain, that moſt of the plowed Grounds that lie about *Acton*, *Edgware*, *Hendon*, and many other Parts of *Middleſex*, by their low, wet Situation, and the ſtiff Nature of their Soils, ſoon acquire a Sourneſs, and breed Twitch or Couch-graſs in Abundance,

Abundance, to the Deſtruction of great Part of their Crops of Grain. Now in oppoſition to their bigotted Opinion, that their Swing-Plough is ſo compleat an Inſtrument that there is no Need of any other, I here propoſe the Uſe of the two-wheel Woodchip-Plough, thus: If after they have fallowed or plowed their Ground the firſt Time in three or four Bout-lands for a Wheat-Crop, at the ſecond Plowing or firſt Stirree, they ſhould alſo with the Swing-Plough plow all the Ground a-croſs into Broad-lands. Next Time, with the Woodchip-Plough, they ſhould plow theſe Broad-lands into ſingle Bouts; and when the Ground has lain a little while in this Poſture, it ſhould be bouted again off the laſt Bouts; then theſe Bouts ſhould be thoroughed down, or, if the Ploughman did not make them too large, they may be harrowed plain, without being firſt thoroughed down, and the ſame Ground preſently after plowed a-croſs with the Swing-Plough, and ſowed with Wheat in three or four Bout-lands. Now here may be ſome Objections raiſed againſt the Woodchip-Plough. *Firſt*, That, if they ſhould plow ſo deep as ſingle Bouting requires, they would get down to the Clay and thus do more Harm than Good. This may be true in ſome Ground, but I advance this Method only where Land is deep enough to admit of it. *2dly*, They may ſay, Here is more Plowing than is uſually done with their Swing-Plough. As to this, they are ſometimes obliged to give five Plowings in all for Wheat with their Swing-Plough, and five will do it if the Woodchip-Plough is employed, provided the Bouts are, as I ſaid, made narrow. At moſt there is only the Thoroughing down different, and that is not quite a half Plowing. In ſhort, in the Main, the Trouble of plowing with the Chip-Plough is on a Par with the Swing, conſidering that each Bouting is little or no more than a half Plowing.

Plowing. The third Objection may be, that the Horſes go double next to the Chip-Plough, tho' ſingle before them; by which they will harden and ſour the Ground, by leaving a hollow Place with their Feet for the Water to ſettle in. This I would not argue againſt, provided they went double at Sowing-time, for, then, their Tread would let in the Water and kill the Wheat; but as the Boutings are performed in Summer, and the Ground is placed at Sowing-time with the Swing-Plough, there is no Room for the Objection. But to illuſtrate this Matter to my Reader, I ſhall here give the Character of the two-wheel Woodchip-Plough: This excellent Inſtrument is ſo contrived by a ſtout flattiſh Piece of Wood being fixed at the Bottom of it, that it is hindered from ſinking too deep, and therefore, though this Plough is of the two-wheel Sort, yet, by its Wood and flat Socket-Share, it will perform its Work deep or ſhallow, both in high gravelly, or in low ſwampy Grounds, which makes it a compleat Plough, eſpecially for thoſe who have both Soils in the ſame Field, or Farm, as many have. It is therefore very proper for making three or four Bout-lands, ſingle Bouts, Hacks, or Broad-lands, where the Ground is not too ſtony nor too wet; for this Reaſon it was invented as a Plough between the *Hertfordſhire* Wheel-ſort, and the Vale Foot-Plough; and, as it is open behind like the Bobtail-Plough, it will not lodge the Earth, nor clog, as the two-wheel Double-mortaſed Plough will. But, by laying this Sort of ſtiff *Middleſex* Land up in ſharp Bouts, it kills and prevents the Growth of Couch-graſs and other Weeds, ſweetens, and moſt expeditiouſly brings it into a fine Tilth for ſowing Wheat. And, thus, this profitable Plough does not only very much contribute to the Return of full Crops of the Golden Grain, but alſo by keeping the Ground hollow, ſweet, and clear

of Couch-graſs and Weeds, the ſucceeding Crop of Beans or Peaſe, will, in courſe, be the greater. This Woodchip Wheel-Plough I furniſh to any Perſon, at a reaſonable Price.

Plowing for Wheat about the Hyde. Here is a Clay-bottom, and a ſtiff Loam at top. They fallow with the Swing-Plough, by laying two of their Size-lands into one, which then contain eight Bouts. At the firſt Stirree-time, they plow in the ſame Manner. At the third Plowing, they fill in Thoroughs, and plow a-croſs into Broad-lands; and if the Ground is very ſour, they plow it a ſecond Time, then fill in the Thoroughs, and harrow all plain; and, the fifth Time, they plow and ſow Wheat in Four-bout Size-lands; here they ſeldom ſow any other Grain than Wheat and Horſe-beans. And here I ſhall obſerve, that though Mr. *Tull*'s Invention of the Drill and Horſe-hough Ploughs are excellently well contrived for his own chalky Farm, near *Hungerford* in *Berkſhire*, and for ſome other dryiſh Soils, where Skill and Ability of Pocket accompany their Uſe; yet here, neither his, nor any other Plough hitherto diſcovered, will anſwer in ſowing Grain in three and four Bout-lands, and in making ſingle Bout-lands, ſo well as the Swing and Woodchip Ploughs; for theſe *Middleſex* Farmers are obliged to ſuch a Mode of plowing, to keep their Lands and Grain dry; ſo in Vale Lands, there is no Plough ſo proper as the Foot-Plough, for ridging them up, and caſting them down, and for plowing in their Seed. The ſame in ſandy Earths, where the Soil is ſo light that it won't ſtand for drilling with the Plough; the Jockey-wheel Plough exceeds all others. The like in the *Iſle of Ely*, their Skiff-Plough is found to be ſingularly ſerviceable; and many others of this Nature prove the Neceſſity there is of writing in general of Huſbandry, which could not be done, if an

Author

Author confin'd his Pen to his own Farm. Here they ſow few Turneps, and but little Clover, becauſe their ſurly, ſtiff, moiſt, clayey Loams are ſo ſubject to run with Twitch, or Couch-graſs, that a Summer's Fallow, in ſome Years, is not ſufficient to reduce them into a thorough Fineneſs and Sweetneſs for a good Crop of Wheat.

Plowing in the ſandy Grounds, &c. *of* Suffolk, Norfolk, *and* Eſſex. Here, in moſt Parts, they plow with what they call the Jockey, or *Flemiſh*-Plough, which has a ſhort Beam, whoſe End lies on a high two-wheel Gallows Stock, or Carriage; is very light, and guided by two fixed Handles, with a Pair of corded Reins only by the Ploughman, and thereby ſaves the Charge of a Boy-driver; becauſe his Horſes go in Breaſt, and work in a looſe ſandy Soil, as they do near *Ipſwich*, *Thetford*, and in many other Places of theſe Countries. Some of their Ploughs have Iron-winged Wheels, others are only Wood, for Sands do not wear much; and, this being a very light Earth. I ſee many of their Jockey-Ploughs have a caſted Iron fixed on them, inſtead of a wooden broad Board, made exactly in the ſame Shape, which coſts about five Shillings and Six-pence, and the wooden Wheels but half a Crown. Its ſhort Share weighs ten or twelve Pounds, ſome not ſo much, and performs all Work like the *Hertfordſhire* Wheel-Ploughs, as the making of four-thorough Stitches, hacking Bouting and Broad-lands in their ſtiff Sands. There is alſo another Sort uſed between *Chelmsford* and *Witham*, in *Eſſex*, called a Jockey Foot-Plough, whoſe broad, ſhort Share weighs about eight Pounds; that commonly has a roundiſh Wing, or Fin, fixed on it, and is drove by the Ploughman without a Boy. Alſo near *Chelmsford*, their Wheel Jockey-Ploughs, of late, have ſucceeded the common Foot-Ploughs, for plowing their light red Earth, and gravelly

Loams, which they find to anſwer much better than them. In one Part of *Suffolk*, ſome uſe a double Broad-board Foot-Plough, whoſe Broad-boards are near twenty Inches long, have two fixed Handles and a ſhort Share; with this they make Drills for ſowing Peaſe and Beans to great Advantage; plow down at once a four-thorough Stitch, by only drawing it through the Middle of it, and is very convenient for drawing out Thoroughs for Broad-lands. About *Colcheſter* they ſometimes make uſe of two light Ploughs now and then, one with two Horſes a-breaſt, and the other with four in the ſame Manner. The firſt plows very ſhallow, the other plows deeper to rear freſh Mould; but this Sort of Operation may be done with other Ploughs.

How one Farmer broke, and another had like to do the ſame, by wrong Plowing their Ground. On the Farm before-mentioned, it was uſual for the former Tenant to give ſtrict Orders to his Ploughman to plow an Acre and an half at one Journey, or in one Day, before he came Home; accordingly the Ploughman did, but then he was forced to plow large Thoroughs, with his wide ſet Broad-board Wheel Fallow-Plough, which every Time turned almoſt ſixteen or eighteen Inches wide of Earth, and which, indeed, ſhould have been rather turned at twice, for then the Ground would have been ſo broke, that Weeds would have had leſs Power to grow and increaſe. This Miſmanagement broke the Farmer, and had like to have done another near *Rickmanſworth*, but his Eyes got open juſt in Time, for, as ſoon as he was ſenſible of his Error, he took in his Fallow-Plough narrower, and ſaved himſelf from that Ruin which otherwiſe muſt have come upon him. For ſuch Plowing not only keeps the Land ſour and hard, but gives Weeds a Foundation to breed, and grow luxuriant; becauſe, in ſour, hard Ground, the Roots of Corn can't ſtrike in their

their thready fine Fibres, with that Freedom and Eaſe as are requiſite to maintain them in a thriving Condition; and when Corn is ſtunted, Weeds will certainly grow predominant; and then follows the great Charge of employing a Number of Weeders a long Time, to the Damage of the Corn, and the Impoveriſhing of the Farmer. But the ſucceeding Farmer, with his Foot-pecked Share-Plough, plowed the Ground (as I ſaid before) into very narrow Thoroughs, by which, he laid the Land evener and better, than the firſt Tenant did with his Wheel Fallow-Plough; ſo that he ſowed his Grain in a fine, looſe Earth, that cauſed it to grow a-pace, and out-run the Weeds to his great Advantage.

How three incloſed Fields were plowed in a right Manner. It was but about *Candlemas*, 1741, that a Neighbour of mine plowed and ſowed three of his Fields thus: The Soil of all theſe was a gravelly Loam; the firſt being a Barley-ſtubble, he clapp'd his Fold on it preſently after Harveſt, and three Sheep dung'd it all over without Plowing. Now, why he folded without firſt Plowing the Ground was, becauſe, at the latter End of the Summer, if Sheep are folded on new plowed Land, it is apt to lie wet, and draw their Bodies too much, corrupt their Blood, and otherwiſe damage them; for which Reaſons, he gave the Field but one Ploughing in all, and that about *Candlemas*, when he harrowed Wheat-ſeed into it. The other two Fields had a Crop of Turneps on them, which, after they were eat off, he gave them one Plowing only, and likewiſe harrowed Wheat into them. From this, I take the Opportunity to obſerve, that this Chiltern Farmer was exactly right in plowing his Ground with our Narrow-lent, or Peaſtitch Wheel-Plough, that broke and fined the clotted Earth much better than the Wheel broad Fallow-Plough, which moſt

moſt others in our Parts make Uſe of for this Purpoſe to their Diſadvantage; and it is on this Account, that I oblige my Ploughman conſtantly to make uſe of this narrow Plough, where Occaſion requires it.

The Damage of Stirring Land too late. A Chiltern incloſed Field, whoſe Soil was a dry Loam, was fallowed for a Wheat Crop in *April*, 1739, and firſt ſtirred the latter End of *May*; but the ſecond Stirree was not perform'd 'till late in *Auguſt*. The Conſequence of this was, that by ſuffering Ground to lie idle ſo long as near three Months, before it had a ſecond Stirree, or third Plowing, the Weeds grew ſo luxuriant, that his After-plowings did not deſtroy many of them, nor was the Land ſufficiently ſweeten'd nor fined, whereby the ſucceeding Crop of Wheat ſuffer'd very much; for the beſt Tilth generally carries it over the coarſer Sorts, and 'tis certain, that the Plough is the beſt Refiner and Weeder of Earths.

The Character of the Wheel Woodchip-Plough, as it is uſed in different Soils. This Plough, no more than ſeveral others that I write of, was never mentioned by any Author whatſoever; it is an exceeding good, new invented Machine, now much in uſe about *Chaffont*, *Rickmanſworth*, *Pinnar*, &c. for its valuable Service, being made for its Beam's End to lie on a high Pin-up, or Gallows Stock, work'd by two Wheels, and has theſe ſeveral Advantages belonging to it: The Woodchip Ploughbeam has three Holes made in it for the Ploughman, by altering his Pin, to cauſe it to go deeper or ſhallower; he can alſo alter it by raiſing, or lowering its Beam with a Pin on each Side the Stock, which he does oftner and better than by the Pin in the Beam. Thus, he has two Opportunities, while the *Hertfordſhire* Wheel-Plough allows but one, and that is, only by ſhifting the Iron Pin in one of the

the five Holes of the Beam. The Woodchip-Plough is drawn by two Horſes in a-breaſt behind, and one before, in their wet Grounds, about *Pinnar* and *Rickmanſworth*, but between *Uxbridge* and *Amerſham*, in their pebbly, ſhort, hard Land, they commonly go with two in a-breaſt behind, and two before; and here I muſt obſerve, that as the Foot-Plough is drawn as eaſy with three Horſes as an *Hertfordſhire* Wheel-Plough is with four, ſo the Woodchip-Plough is as eaſily drawn with four Horſes, as our *Hertfordſhire* Wheel-Plough is with five or ſix, becauſe the Chip-Plough has a broad Bottom-piece of Wood, that works with a ſhort Socket-ſhare on it, while the *Hertfordſhire* Wheel-Plough has a long, ſharp Bottom, by a two-mortaſed Iron pecked Share being fixed to it, that cauſes it to go deep, and draw hard. This Woodchip-Plough is not ſo well as the other to go where the Ground is ſtony, or cruſted, in dry Weather, becauſe here it is apt to be thrown out of its Work, as the Foot-Plough is in the like Caſe; yet this Plough will work where the Foot-Plough can't, becauſe its Wheel keeps it more ſteady in its Work, and therefore anſwers between (as I ſaid before) the *Hertfordſhire* Wheel and the Foot-Plough, tho' its Bottom is matted with Iron, to keep it from wearing out too ſoon. There are two Sorts of Woodchip-Ploughs, the one broad, and the other narrow; the firſt turns a large, thin Thorough, for which Reaſon, it is generally uſed to plow up Stubbles in Summer and Winter, in Land that is neither too wet nor too dry, in Clay Loams, and in the pebbly Sort of Soils, and at Lent Seaſon; it plows two three Bout-lands into one ſix Bout-land, which is a juſt Breadth of Ground for the Ploughman to throw a Caſt of Wheat or other Seed. The narrow Chip-Plough makes three Bout-lands of a Broad-land, croſs the laſt Plowing, at Wheat Seed-time, when

when it plows the ſame in; and this is all the narrow one does, for the broad Chip-Plough performs the reſt of the Work all the Year after, except when their pebbly Ground, at Fallow-time, is got ſo hard, that they are forced to uſe the two wheel Double-mortaſed *Hertfordſhire* Fallow-Plough. But, about *Harrow* and *Pinnar*, they go with no other than the Swing and Woodchip-Ploughs, becauſe their Land lies low, and not ſo ſtony, or pebbly, as it is about *Chaffont*.

The Character of the Hertfordſhire *Double-Plough.* This Double-Plough was firſt contrived, and made uſe of, in *Hertfordſhire*, in 1732: It is of the two-wheel Sort, and only fit to plow Chalks, Sands, Gravels, and light dry Loams in the Chilturn Country; for in the Ridge Vale, or in the Size *Middleſex* plowed Grounds, it won't anſwer; but there it excellently well plows Land for Wheat, Barley, Peaſe, Beans, Thetches, Oats, Turneps, *&c.* which it does better than any of the ſingle Ploughs, becauſe it makes leſs Thoroughs, and yet performs almoſt double Work in the ſame Time that a ſingle Plough is employed, and this with only four Horſes, where the Ground has been before plowed with a ſingle Plough. When Wheat is ſown in four-thorough Stitches, or two Bout-lands, it finiſhes its Work as it goes, and therefore prevents the Loſs that a ſingle Plough ſubjects the new ſown Corn to. In Barley, Turnep, and other Seaſons, when Farmers are in haſte to ſow their Ground, it does vaſt Service, by diſpatching a great deal of Work in a little Time, and thereby ſaves Horſes and Mens Labour and Meat, *&c.* In ſhort, this Double-Plough performs many other Things too long here to enumerate; and therefore, I refer my Reader to the Peruſal of my Monthly Book for *April*, where I have given an ample Account of the tranſcendant Uſes of this Plough, that is not made by faſtening two

Ploughs

Ploughs to one, as the old-faſhion'd Double-Plough was, but by a Crook in the Beam, to which two ſmall Broad-board Shares and Coulters are affix'd.

CHAP. II.

Of TURNEPS.

THE common Seaſon for ſowing Turneps, in our incloſed Fields of *Hertfordſhire*, is a Fort-night before, and a Fortnight after *Midſummer*; yet there be many who ſow this Seed in *April* and *May*, either for drawing them early to ſell, or to be the firſt they eat off with Sheep, in order to ſow the ſame Land with Wheat, eſpecially if it be a cold, wet Soil: Therefore, I will ſuppoſe your Ground to be well plowed and manured, in the Manner I have deſcribed in my laſt Month, where I have treated on this valuable Root more fully than I ſhall in this; and it is in this Month, that forward ſown Turneps, of the *Dutch*, white, flattiſh Sort, are drawn about the Country, and ſold by ſeveral of our Farmers, as an excellent, pleaſant, wholeſome Root for Gentry, as well as for Harveſt-men, becauſe there are no ſweeter Turneps than our *Hertfordſhire* Sort, as is well known to the *Londoners*, who conſume great Quantities of theſe Vegetables, which we yearly carry up, for ſelling them, in *Covent-Garden*, and other Markets.

Manures, or Dreſſings for Turneps. It is to little Purpoſe for any to ſow this Seed, on three Accounts, 1*ſt*, If the Ground is not before-hand plowed into a fine Tilth. 2*dly*, If it is not well manured. And, 3*dly*, If the Turneps are not well houghed. I ſhall here only touch upon the ſecond Article, and that is, 1*ſt*, If you dung the Land

for a Crop of Turneps, and it be of the long Sort, it ſhould have been plowed in at Fallow-time, either before *April*, or in that Month, or in *May* at fartheſt, that it might have Time to rot and mix with the Earth; but if it be ſhort, rotten Dung, then it may be ſpread a little before the laſt Plowing, and plowed in, for harrowing the Turnep-ſeed on it. 2*dly*, Or you may ſpread forty, or better ſixty Buſhels of Lime over one Acre, and when it is ſlack'd, you may plow very ſhallow, and harrow your Turnep-ſeed on the ſame. 3*dly*, Or you may, as a Top-dreſſing (as we call it) ſet your Fold, and run it over the Field as faſt as poſſible, elſe the Sheep will damage the young Turneps, unleſs they are parted from them in time, by Hurdles. 4*thly*, Or you may ſow ten Buſhels of Peat-aſhes over each Acre as ſoon as the Seed is ſown, or ſow them and harrow them in with the Seed. 5*thly*, Or ſow forty Buſhels of ſlack'd Lime over the Acre, after the Seed is ſown. Or, 6*thly*, Do the like with Soot. The laſt five Dreſſings will keep off the Worm, Fly, Slug, Grub, and Caterpillar.

The Nature and Miſchief of the deſtructive Turnep-Fly. This little Inſect is chiefly bred by Horſe, Aſs, Cow and Hog Dungs, and that moſtly in hot, dry Seaſons. Theſe are ſo voracious after the two ſweet ſeedling Leaves of young Plants, that nothing can ſtop their Rapine ſo well as a Contrivance of ſomething that will oppoſe them in all Weathers; it is therefore that Tobacco-ſand, or its Duſt, Lime, or Wood-aſhes, will not effectually do it, becauſe their weak Natures and Scents are ſoon exhauſted by Dews, and preſently waſh'd away by Showers below the Surface; whereas Brimſtone is endowed with ſuch a ſtrong, tenacious, powerful Taſte and Smell, as taints not only the Seed before it is put into the Ground, but likewiſe the contiguous Earth about it for ſome Time after, ſo that the

the Fly cannot bear to inhabit even its Neighbourhood; for nothing is more diſagreeable to Animals than the Smoak or Smell of Sulphur, witneſs its ſudden Suffocation of them when they are confin'd and penn'd in with it; hence it is, that even the circumambient Air becomes, in ſome Degree, infected by it with its nauſeous Scent, inſomuch that the Fly is obliged to forſake the Place in ſearch of more agreeable Vegetables, which, at this Time of the Year, are eaſily found out; and thus the young Turneps are deliver'd from their mortal Enemy, who not only ruins Thouſands of Acres of them, but oftentimes obliges the Farmer to be at the exceſſive Charge of plowing and ſowing a ſecond, and ſometimes a third Time, and at laſt frequently fails of a Crop. But I muſt here obſerve, that though Horſe, Aſs, Cow, and Hog Dungs are ſo pernicious in breeding the Fly, yet they have this good Property belonging to them, that when any of them are truly ſhort, rotten, and greaſy, and thoroughly mix'd with the Ground, it ſo lightens and hollows it, as to give an eaſy Paſſage to the young Turnep Fibres, to ſtrike down and get eaſily into the Earth, whereby they acquire ſuch a ſwift Growth, as cauſes them to out-run the Fly's Rapine, and get into bitter Leaves before they have Time to demoliſh the Crop, if the Seed is ſown thick enough; for in poor hard Ground, it is often the Farmer's Misfortune to loſe them, becauſe here the Fly has full Leiſure to feed on, and devour, the two ſeedling Leaves at his Pleaſure, as is evidently proved by the ſucceſsful Crops of thoſe who have, in Time, dreſſed their Field with a due Quantity of rotten Dung. But where they are ſo injudicious as to carry long Dung immediately from the Stable, and plow it in juſt before the Turneps are ſown, they ſtand an ugly Chance of loſing the Enjoyment of this moſt ſer-

viceable Root, when they are moſt in Need of it, becauſe all ſuch crude Dung too much hollows the Earth, preſently breeds divers innumerable Inſects, often cankers and burns up the Crop in its Infancy, or at leaſt keeps them from thriving, and, at laſt, very much hinders the Hough; that can't be truly worked, by reaſon ſuch long Dung is apt to tear up and clog the Inſtrument.

How a Farmer, after four Plowings and Sowings, loſt his Crop of Turneps. I knew a Farmer who ſowed a gravelly loamy Field, of two Acres and three Roods, that was incloſed, with Turnep-ſeed, on the 14th Day of *June* 1735, but a cold, wet Night ſucceeding (which is generally fatal) the Crop miſſed; for hot Weather, and moderate Showers, agree beſt with new ſown Seed. On the 29th of *June*, the ſame Field was plowed and ſowed with eight Pounds of Turnep-ſeed a ſecond Time, when the Weather was dry and hot, and then the Fly deſtroy'd them. On the 27th of *July*, the ſame Field was plowed and ſowed all over with Seed a third Time, and had the ſame Fate; and ſo a fourth Time. Thus, after four Plowings and Sowings, the Farmer, to my Knowledge, miſs'd a Crop of Turneps in the ſame Field; once by Showers falling the next Night in great Plenty, that burſt the Seed too ſoon, and thrice by the Fly; which Loſs may be computed at eleven Shillings and Six-pence ſuſtained each Time for only plowing and harrowing, beſides the Coſt of the Seed, ſo that the whole Damage may be reckon'd in all at fifty-four Shillings in this little Field, and yet the Farmer diſappointed of his Winter Crop of Turneps. Here then I ſhall make known a fine Secret, for the Benefit of both Farmer and Gardener; whoſe Intereſt it will be, not only to make uſe of it for Turneps, but alſo for ſecuring the ſeedling Leaves of Flax-ſeed, Cole-ſeed, Savoys, Cabbages, and many other Vegetables;

Vegetables; and in particular, for preventing the Damage of the Fly the Beginning of *April*, among the Stalks, or Sprouts, of young Onions; Weld alſo, while it is in its ſeeding Leaves, is often deſtroyed by the Fly, as young Turneps are.

An excellent Receipt for preventing the Fly's damaging the ſeedling Leaves of Turneps, Cabbages, Savoys, Cole, Weld, Flax, and many other Vegetables, for leſs than Six-pence an Acre Charge. This great and ſerviceable Secret, that I here freely make publick, for preventing the Damage of the Fly, is now abſolutely neceſſary to be made uſe of, becauſe, this being generally the hotteſt Month in the Year, the Turnep is the more liable to be deſtroyed by it. Therefore, firſt mix one Ounce of Flour of Brimſtone with three Pounds of Turnep-ſeed, daily, for three Days ſucceſſively, in an earthen glazed Pot, and keep it cover'd cloſe, ſtirring all together well at each freſh Addition, that the Seed may be the more tainted by the Sulphur; then ſow it as uſual on one Acre of Ground, as I have directed in the Month of *June*, and let the Weather come wet or dry, it will keep off the Fly 'till the third or fourth ſeedling Leaf is formed, for by this Time they will all be ſomewhat bitteriſh, and conſequently very much out of the Danger of this little black Flying Inſect, which, at this Time of the Year, may be ſometimes ſeen in Swarms on the Wing near the Ground, ſearching for, and ſettling on freſh Bites, 'till they ruin Thouſands of Acres in ſome Seaſons, by lying and reſiding under little Clots of Earth all Night, and doing their Miſchief the Day following.

This effectual cheap Ingredient and Antidote I every Year ſucceſſively make uſe of, and which will be of immenſe Service to the Nations in general, if the Ground is firſt duly prepared, and the Seed thus rightly managed; for, by obtaining plentiful

plentiful Crops of Turneps, Beef, Veal, Mutton, Lamb, Pork, Butter, Cheese, Bustards, Pheasants, and many other Profits may be cheaply enjoy'd by the Farmer and the Publick, as I have, and shall hereafter, fully make appear; and yet I have another most valuable Receipt to impart, that not only keeps off the Damage of Flies from young Turneps, but infallibly prevents the same from the destructive Slug, or naked Snail, though it rains a Week together presently after the Seed is sown. It is no Powder, but a sure cheap Antidote in any Weather; and not only answers as a Remedy against these Insects, but serves at the same Time, as a Manure for dressing the Ground, and fertilising the Crop of Turneps; as is every Year experienced by the few Farmers that know and try it.

The Damage that a Crop of Turneps did in the Vale of Aylesbury. Near *Eaton* in the Vale of *Aylesbury*, a Farmer sowed Turnep-seed on some of his Ridge Half-acre Lands, that took the Ground very well, and proved a fine Winter Crop for his Sheep; accordingly he fed them a considerable Time, but the Consequence was this: They so stoleh'd and harden'd the stiff wettish Land with their Feet in Rainy-weather, that they made many Hollows in it, which proved so many Receptacles for lodging the Water, and thereby soured the Ground to a great Degree; insomuch, as the Farmer declared, he did not get it into a sweet Tilth and light Order again for seven Years; for here they can't plow a-cross their Lands, and therefore cant get their Ground fine near so soon as that which may be plowed any-ways.

To sow Turnep-seed in wet, flat, Chilturn Grounds. In our Chilturn Country of *Hertfordshire*, we have many flat, wet Fields, of stiff, loamy, and gravelly Lands; which obliges the Farmer to manage this Way: After he has fallowed his Ground in Broad-

lands,

lands, he will harrow and plow it a-croſs in Broad-lands, or Hacks, a ſecond Time. Some Time after this, he will harrow and plow it a-croſs a third Time into four thorough Stitches, or two Bout-lands, which, as ſoon as done, he will harrow down the Stitches long-ways almoſt flat, then ſow and harrow in his Turnep-ſeed. By this Piece of good Huſbandry, the Turneps will be eaſier houghed, lie drier, grow bigger, and fatten Sheep much better than if they lay in Broad-lands; it is a pretty Security, for when Ground lies in ſuch a Poſture, the feeding Sheep can't tread it quite ſo hard and flat as they do Broad-lands; by which the Farmer can afterwards, by plowing only a Bout on a Stitch with the Fallow Wheel-Plough, harrow in Wheat on the ſame. Or, if Barley is to be ſown in the Spring, then, by plowing this Field a-croſs into Broad-lands, the Seed may be harrowed in with Succeſs, for ſuch Ground will then certainly lie hollow, if the Turneps were a good Crop. Here then I have farther to write; that as ſuch a Piece of wet ſtiff Ground won't admit of the Drill Huſbandry, there is a Neceſſity in this, as well as in many other Inſtances I could name, of uſing the old *Virgilian* Method of plowing and ſowing. In ſome of the Eaſtern Parts of *Hertfordſhire*, and ſeveral other Places, they ſow their Turnep-ſeed in four Bout-lands, to deliver the Plants and Cattle that feed on them from rotting, and ſometimes draw and feed on the Turneps in Meadow Ground for the like Purpoſe. In Vale Ridge-lands alſo, where the Soil is ſomewhat of the chalky, gravelly, ſandy, or dry loamy Kind, they ſow Turnep-ſeed to good Advantage; but where Land, ſo ſituated, is a wet Clay or Loam in Vales, it won't anſwer for the foregoing Reaſons.

Of

Of Re-ſowing Turnep-ſeed. The moſt curious Farmer in our Parts, whenever his early Crop of Turneps miſſed, he would re-plow the ſame Ground, and ſow and harrow in freſh Seed, but not the ſame Sort as he did at firſt, leſt he came off as bad as before. His Way, therefore, was to procure the little red Sort of Turnep-ſeed, which he found, by many Trials, to be the hardieſt and ſureſt of all others; for when the firſt was gone by Drought, or deſtroy'd by the Fly or Slug, this latter ſow'd Sort, generally ſtood well, and reſiſted the Severity of Froſts and Chills to Admiration. But, in ſome Sorts of ſandy Grounds, when a Crop of Seed miſſes taking, they re-ſow it again, and only harrow it in without plowing the Ground firſt, as I have ſeen done in ſuch hot dry Soils in *Suffolk*, and ſo we do (but very ſeldom) in our *Hertfordſhire* dry Loams, ſometimes to good Succeſs.

How extraordinary dry Weather affects a Crop of Turneps. The Summer, 1740, was ſo long dry, that moſt of the Turnep-ſeed ſown in light dry Soils came to little or nothing; for, if the Fly did not devour them, the Drought killed them. A little above *Watford*, there was a gravelly loamy Field had a promiſing Crop on it, that flouriſh'd accordingly, after being well houghed in due Time; yet, in a few Weeks after, they were dried up and ſpoiled by the Continuance of dry Weather, which made their Leaves look of a yellowiſh and reddiſh Colour; an Indication of their being dried, or burnt paſt Recovery. The Fly, alſo, in this long duſty Seaſon, proved very buſy and deſtructive to many Fields that were ſown this Summer with Turnep-ſeed, by their Breed and great Increaſe. The ſecond Caſe was that of my own incloſed Field, of a gravelly loamy Soil. Firſt, I fallowed or plowed the Land in *April* (that before had a Crop of Peaſe on it) in Broad-lands, with our Wheel Fallow-

Fallow-Plough; the next Time I ſtirred it a-croſs in Hacks, afterwards I firſt harrowed all plain, and then ſowed and harrowed in my Turnep-ſeed once in a Place. This Field I dreſſed all over with the Fold, and prepared my Seed according to the Brimſtone Receipt, and though it was ſowed on the 13th Day of *June* 1740, yet it was the 21ſt Day of this Month before I perceived their coming up, ſo that the Seed lay, as it were, buried near ſix Weeks, 'till a few ſmall Showers fell, after a very long dry Seaſon. But to be more particular: It was on *Sunday*, *July* 20, that my Shepherd turn'd his Flock of Sheep into the ſame Field, to eat off the Weeds and a few Dew Plants that were got up, as believing there would no more Turneps appear, but it happen'd otherwiſe; for, a Shower of Rain falling the ſame Night, on the Morrow a fine thick Crop was ſeen, and which proved a good one indeed. A third Caſe was, that my Neighbour dung'd a large Field, which he plowed in, and ſowed the Turnep-ſeed on the rough Ground without harrowing, for, if he had harrowed, he had tore up the Dung; on this he immediately ſet his Fold, and dreſſed it well, and though his Turneps came up very thick, yet the dry Weather deſtroyed them before they were fit to hough; on this he ſowed the ſame Field all over with Turnep-ſeed again, and plowed it in, and it returned him a tolerable Crop for feeding his Sheep with, the following Winter. A fourth Caſe was: That a Farmer ſowed his Field with Turnep-ſeed, but ſeeing none come up, after waiting a while, he ſowed and harrowed in a ſecond Parcel of Seed without plowing; but this likewiſe failed his Expectation. Then he plowed up all the Ground, and harrowed in Seed a third Time, which fully anſwer'd his Purpoſe, for the young Turneps appear'd ſo prodigiouſly

thick, that it was judged, that the whole three Sowings came up at laſt.

The ill Effects of that Turnep Diſeaſe, called in Norfolk *and* Suffolk, *Anbury.* This is ſuch a contagious Diſtemper among Turneps, that ſome believe it to be as catching as the Small-pox in the human Species; and their general Notion here is, that this Turnep Peſt is cauſed chiefly in dry Summers, by dreſſing their ſandy Lands with coarſe Dung, for getting plentiful Crops of Turneps, in order to feed their *Scotch* and *Welſh* Runts for *Smithfield* Market; for in many Places they dung only for this ſerviceable Root, and not directly for any Corn, which is thought to occaſion this Misfortune. As a Proof of this, they ſay, that when they can get Clay, or Marle, to dreſs their ſandy Soils, they are never troubled with the Anbury, otherwiſe their large Fields of Turneps are often infected by it; for it is certainly the natural Conſequence of Dung, eſpecially the long undigeſted ranker Sort, to breed the Mould both in the Turnep, Hop, and in many other Vegetables, which, in my humble Opinion, breeds this Diſtemper; that ſhews itſelf by the Riſe of a ſpungy Bulb, Knot, or Excreſence on the Turnep, in which is generally contained a ſmall Worm or Maggot, that eats in, cankers, and in Time rots the whole Turnep; ſo that a fine flouriſhing Crop of them has, in a ſhort Time, become neither fit for the Uſe of Man nor Beaſt. An Inſtance of this happened to one of theſe Farmers when I was in this Country on my Travels in 1736, who, refuſing twenty Shillings an Acre for a conſiderable Quantity, a little while after could not ſell them for five Shillings an Acre. At *Leighton* in *Bedfordſhire*, they ſay it is a very dry hot Summer that chiefly occaſions the Breed of Worms, and them to take the Turnep, which eats, cankers,

and

and ſpoils them; and this their Miſchief they moſtly do to the forward ſown, early, *Dutch* white, flat Turnep, which, in ſuch a Seaſon, gets alſo quickly rank and ſtringy, and ſo becomes of little Service in a few Weeks. Then for a ſecond, or latter Crop, they ſow the green round Sort of Turnep about the Beginning of this Month, which commonly fares better, by being not in ſo much Danger of the Worm, Scab, or Anbury, as the firſt ſown are; and this was the Caſe of many of their Farmers and Gardeners, in the long dry Summer of 1740, who live in and about this Town. But in our Clays, Loams, Chalks, and Gravels in *Hertfordſhire*, we are ſeldom, or never, troubled with this Malady; I never knew but a ſmall Inſtance of it in our Neighbourhood, and that happen'd to a Turnep Crop that grew in a flat Loam. This Ground two Years before, was dreſſed all over with Hen Dung for a Crop of Wheat, but being afterwards ſown with this Seed, the Turneps were houghed and appear'd well, 'till a Worm, or Maggot bred in them, which raiſed a Wart as big as a Marvel on them, and which cauſed them to dwindle away, and turn to little or no Profit. But this Anbury Evil will be much prevented, if the Matter is applied to new ſown Turnep-ſeed, that I ſhall make known hereafter.

The Improvement of Turnep Crops by boughing them. Where Ground has no Manure or Dreſſing beſtow'd on it, and the Turnep-ſeed, by virtue of a fine Tilth, happens to take, ſuch Turneps ſhould be ſure to be houghed deep and moulded well up, becauſe ſuch Mould will prove a ſort of Dreſſing to the Turnep Crop; but where Ground is well dung'd, there is no ſuch Neceſſity for deep Houghing, leſt the houged Turneps up-ſet and grow again, which many then will be ſure to do, if the Ground is wettiſh at Houghing-time. However, in

either Caſe, be ſure to break all the Surface, for then ſuch Houghing will be as good as a ſorry Plowing, and likewiſe be a great Means to produce the greater Crop of Wheat or Barley that is to ſucceed; for where Ground is left hard, and Twitch-graſs or other Weeds are left in the Earth for want of houghing clean, a Turnep is put back from thriving, by reaſon no Root affects a fine, clear, hollow Mould more than this. The Summer, 1741, was ſo long dry, that moſt Farmers miſs'd their Crops of Turneps; one in particular, near *Rickmanſworth*, ſowed as much Seed as coſt him ten Pounds, and had hardly any Turneps; another in *Ivinghoe* Pariſh ſowed his Ground three Times, and had not above twenty Shillings worth in all, though he uſually has thirty or forty Acres of well planted Turneps in one Year; yet, about the Beginning of *September*, there fell ſome Showers of Rain for two or three Days together, which ſo moiſten'd the Earth, that it encourag'd many to plow up their Stubbles, and harrow in Turnep-ſeed; and, on the 25th Day of that Month, many Fields might be then ſeen under the Hough, which anſwer'd the Farmer's Purpoſe; for a very mild Winter ſucceeding, the Turneps grew 'till *Chriſtmas* or longer, and appled well in gravelly and ſtony Grounds, becauſe their Roots can't here enter ſo deep, as they will in clean Loams and other looſe Earths, where they are apt to get low, and grow into ſpiry Heads. Likewiſe in heavy Sands, Turneps will proſper well, becauſe it's a harſh ſtopping Earth; and in caſe the Crop is like to burn and be ſtunted before you have Leiſure for houghing them, then make uſe of the triangular Hough-Plough, that I have deſcribed in my former Months. It was but about the Year 1730, that Turneps in *Derbyſhire* were, for the firſt Time, houghed in Fields.

CHAP.

CHAP. III.

Of RAPE, *or* COLE-SEED.

HOW to ſow Cole-ſeed in proper Grounds. The Beginning of this Month, in wet ſpewy Land, ſow Cole, or Rape-ſeed, as at a proper Time, that it may get a ſtrong Root againſt Winter. And for this Purpoſe, as ſtiff Soils are moſt agreeable for this Plant to grow in, the Land muſt have its timely Fallowing and Stirrings with the Foot-Swing, or wooden Chip-Plough, either in broad, ridge, or three or four Bout-lands; or drilled with the Pulley, Three-wheel, or double broad Board-Plough, for the Ground muſt be work'd into a fine hollow Tilth, after it has been thoroughly dreſſed and manured, becauſe this Herb, in particular, requires to grow in an Earth that is in good Heart, by reaſon it draws as much Nouriſhment as all the Cabbage Tribe does; therefore it is a Folly to ſow this Seed in very poor, dry Land. Between *Whitham* and *Colcheſter* in *Eſſex*, they ſow this Seed in four Bout-lands, becauſe their large Thoroughs ſhould drain and lodge the Waters. And it was in this Month that they harrowed the Ground firſt, and then ſowed and harrowed half a Peck of this Seed on an Acre Broad-caſt out of the Hand, without mixing it with Sand, or other heavy Earth, for its better Spreading, as ſome Authors direct; for he that can't ſow this Seed naked and true, is but a ſorry Workman. In the next Month of *Auguſt*, I ſaw the young Plants in a flouriſhing Condition.

How miſchievous the Slug is to young Cole-worts. This is the greateſt Enemy of all others to the Cole-crop, as being the moſt natural Inſect reſident in all ſtiff and moiſt Loams, which being alſo the very

very Soil that Cole-ſeed moſtly affects, it ſeldom miſſes of being attacked by the Slug, (though ſometimes by the Fly and Caterpillar.) And the rather, becauſe of the firſt tender ſweet ſeedling Leaves that prove a dainty Food for the ſoft Mouth of theſe Ravagers, for the Slug, above all Earths, hates dry Sands and Gravels, as being contrary to its moiſt Nature, and therefore is a Native to ſtiff and fenny Grounds. I formerly, before I knew how to prevent it, loſt two Fields ſown with this profitable Plant in a very little Time; for in the Month of *Auguſt*, they fell on them with great Eagerneſs, and ſoon deſtroyed the young Crop in its ſeedling Leaves.

The Management and great Profit of a Rape, or Cole-ſeed Crop. This moſt valuable Plant has but a few Years paſt become common in ſome of our Fields, and now is known but in few Parts under the Management I am going to ſhew. It's not only profitable for the Oil the Seed produces, but by Conſequence it muſt be more and more in Requeſt for improving low, moraſſy, and fenny Grounds, by feeding Cows, Sheep, and other Creatures with it in hard Weather, when no other Meat can be had abroad; and it is on this Account, that they ſow Cole-ſeed about *Weſt-Hyde*, near *Rickmanſworth*, and other Places, for the Ewes that ſuckle Houſe Lambs, who even in ſnowy Seaſons can come at their tall ſucculent Heads, when Turneps, Raygraſs, Clover, and all other green Vegetables are under Cover. It breeds a great deal of Milk in a little Time, both in Sheep, and Cows, and will bear feeding down more than once. At this Place they ſow one Buſhel of Cole-ſeed on ten Acres, which they commonly harrow in on one Plowing, as ſoon as the forward Puffin Pea is carried off the Ground. But about *Sax-Mundum*, in *Norfolk*, and ſome other Parts, they

put

put the Seed to no other Uſe than making Oil with it. Another Advantage belonging to this ſerviceable Plant is, that in caſe your Turneps miſs taking, you may, if the Ground is proper for it, ſow it with Cole-ſeed. In our high Broad-land-Loams in *Hertfordſhire*, after the laſt Plowing, we harrow twice or thrice, one Way firſt, then ſow the Seed, and harrow it only once in a Place croſswiſe: But in Ridge, or two or four Bout-lands croſs Harrowing won't anſwer. This Seed muſt not be ſown too thick where it is not intended to be houghed: But if you do intend to hough it (which is the better Way) then the thicker you ſow it, the ſurer the Crop. The Roots of this Plant, as they draw the Earth very much, it forces on, and gives the Stalks a new Head in a little time, and which, as they are greedily eaten by Cattle, is quickly returned again in Dung and Urine, to the great Enrichment of the Land; by which the Owner is enabled to lay out his Money in other neceſſary Incidents, ſince the great Coſt of Manures is here in a great Meaſure ſupplied by Sheep, Cows, *&c.* But it is not proper to let Cows feed on them in the open Field, becauſe they are apt to pull them up by their Roots; in which Caſe, the Way is to cut off their Heads, and give the Cows them in another Field, or under Covert, and that not in too great Abundance, leſt it hoves and kills them; beſides which ill Property, when the Colewort is got old, it makes the Milk rankiſh, and likewiſe rots both Cows and Sheep, if too long fed on them. On the contrary, the Vertues of Rapes or Coleworts are, that they are excellent boiling Herbs in froſty Seaſons, quickly fatten Cows and Sheep, and very opportunely yield a Subſiſtence for Cattle after Turneps are gone. They cauſe Plenty of Milk, and are a very agreeable wholeſome Food for Hogs, Rabbets, the great wild

wild Buſtard, Turkies, Swans, Geeſe, Ducks, Pheaſants, and ſeveral other Creatures, who greedily feed on their juicy pleaſant Leaves. If the Cole, or Kale, or Rape is like to be a full thick Crop, it may be fed at times in *January*, *February*, and *March*, in caſe the ſame Ground is deſigned to be ſown with Wheat at next *Michaelmas*, becauſe in *April* the fallow Seaſon ſhould begin for the Field to be plowed the firſt time; and when the Cole grows into ſuch a plentiful Crop that it kills the Weeds, and hollows and fines the Earth, there is a ſecond Advantage that may be enjoyed from it. Give the Land one or two Plowings, and harrow in Turnep Seed: Thus, if the Ground is in good Heart, it need not be dunged, for then it will do without any Manure, and return an early Crop of Turneps, that may be fed time enough to ſow Wheat on the ſame. But if the Cole is like to be a ſcanty thin Crop, it's commonly fed off by *Allhollantide*, or the latter End of *November*, in order to prepare the ſame Ground by ſeveral Plowings for ſowing it with Barley the Spring following. Where the Land is not too wet, ſome have ventured to turn in and fat Bullocks upon the Cole Heads, with Hay conſtantly by them; but here they are apt to tread them down and ſpoil many, and ſometimes get hoved, to the Endangering of their Lives But Sheep will fat on them more ſafely, yet not without hazarding their Safety. Of this Sort, the ſuckling Ewes are the leaſt expoſed to this Misfortune. Coleworts will do well on thoſe clayey wettiſh Loams, where Turneps muſt not be allowed to grow, becauſe their broad round Roots leave Holes behind them, and let in the Water to the ſouring of the Ground, and ſpoiling it for ſucceeding Crops of Corn. This Cole-ſeed will alſo grow to Profit on any of our Chilturn Loams, provided

provided they be well dunged, or manured, and where ſuch Ground is not, by ſeveral Plowings on Purpoſe, brought into a fine Tilth for ſowing this Seed: It is now become a very common Practice to give a Wheat, Barley, or Pea Stubble only one Plowing, and harrow in Cole-ſeed. And here the Quantity of Seed ſhould be more than on a Tilth Earth; for, when the Ground is made perfectly fine, I take a Pottle will go as far as half a Peck of Seed on a Stubble. Some again will ſow this Seed in *February*, for the Coleworts to be fed about *Midſummer*; then, if they are not fed down too cloſe, they will grow into ſeedy Heads, for it is ſometimes eaten before it is reaped for Seed, elſe it may come too thick: When the Pods look brown, then reap it as you do Wheat, and let it lie in Handfuls on the Ground a Week or Fortnight to dry, for theſe muſt not be bound up: Some thraſh it on a Sail or Barn Cloth in the Field: Others will firſt carry it into a Barn, and thraſh it on a Floor. When this Seed is full ripe, it is very apt to ſhed. In this Month it is commonly ripe for Cutting, as you may know by handling the Pods, and ſeeing the Seed of a brown Colour.

Manuring the Ground for Cole-ſeed or Rape-ſeed. After you have harrowed the Ground twice or thrice in a Place one Way, that is to ſay, if the Land lies rough, firſt harrow it three Times in a Place; but if it is pretty fine, twice in a Place will do: Then ſow ten Buſhels of *Newbury* or *Hempſtead* Peat Aſhes all over one Acre, broad-caſt, twice or thrice in a Place, for the Peat Buſhel will hold out to near this; then harrow in your Cole-ſeed once in a Place, croſs-ways, and it is done; or you may ſow and harrow in the Seed firſt, and then ſow the Manure over it; but as every one cannot come by right Peat Aſhes, you may run a Fold over the new ſown Cole-ſeed, or

inſtead of theſe, you may ſow forty or ſixty Buſhels of ſlaked Lime over the Acre of Seed, or twenty Buſhels of Soot, or ſixty Buſhels of Coal or Wood-Aſhes. Either of theſe ſalt and ſulphureous Manures will not only deſtroy or prevent the Worm-Grub, Caterpillar, Fly, or Slug's Eating up the young ſeedling Leaves of this ſerviceable Plant, but will alſo forward their Growth into a large Head with great Expedition.

The hardy Nature of a Colewort. About *October*, 1739, a Man accidentally going by a Field of Coleworts that were ſown for Sheep in *Great Gaddeſden* Pariſh, *Hertfordſhire*, pulled one of them up, and when he had cut off its Head, he tranſplanted it in his Garden, where it kept alive, and about the Middle of next *May* it grew to about two Feet high, which encouraged him to let it ſtand for Seed, though all his Garden Savoys, as well as the Rue, Sage, Roſemary, and moſt other Things in Gentlemen's Gardens were killed by this long and the ſevereſt cold Winter and Spring that have been known in the Memory of Man.

How they ſow and manage Cole-ſeed in the Iſle of Ely *and* Glouceſterſhire, *&c.* Here they plow and turn up old ſward Ground about an Inch thick, that with a Fork they put into little Heaps and burn into Aſhes, which they preſently ſow about, and then plow and ſow white Oats which return commonly ten Quarters off one Acre. At *Michaelmas* following, they ſow the ſame Ground with Wheat on only one Plowing; and the third Crop is Cole-ſeed for making Oil at the Mill, or to feed Sheep for the Butcher, which Coleworts will do in a little Time, but the Mutton is commonly rank. In ſome Parts of *Glouceſterſhire*, they have paid three Pounds an Acre a Year for old ſward Ground, which they here plow up with the Breaſt-Plough, and burn the Turf into Aſhes, that they ſow all over

over and plow in about *Midſummer*, and then harrow in the Seed; that, when ripe, they reap and thraſh with Flails on a large Sheet or Barn-Cloth, in the Field. Near *Chelmsford*, in *Eſſex*, even in ſome of their lightiſh Land, they dung it for ſowing Oats, and as ſoon as they are got off, they give the ſame Ground only one Plowing, and harrow in Cole-ſeed, but they never hough them here.

The Chertſey *and* Gaddeſden *Ways of tranſplanting young rape Plants or Coleworts.* About *Chertſey*, in *Surry*, the Farmer ſows them on a Barley Stubble, which he gives one Ploughing, and harrows in the Seed. Another Way they have to ſow their Seed in a Garden ſometime in *May* or *June*, and tranſplant the young Coleworts in Fields, chiefly by Boys and Girls, who are brought up to the Practice of it, and who ſet them by Lines at two Feet aſunder every Way, which they reckon rather cheaper than ſowing the Seed promiſcuouſly in the Field, conſidering the Charge that attends their Houghing here afterwards, which the other Way they are commonly free from. I know a Gentleman who ſowed two of his plowed Fields with Cole-ſeed in the *Chilturn* Country, on a gravelly loamy Soil; one took the Seed all over very well, but the other had ſeveral vacant Places in it. To ſupply this Defect, he drew out the young Plants where they were thickeſt, and tranſplanted them where they were thinneſt, by which Management he obtained a full Crop of Coleworts, that fed his Sheep in the hard Winter, and Spring, 1739-40, when no other green Meat could be got; but the other Field, which lay very much expoſed to the North and Eaſt Winds, loſt its Crop; a Thing very rare; for this is ſo hardy a Plant, as ſeldom receives Damage by the Froſt. The other Field was ſheltered by a Wood, and ſucceeded well; and when the Coleworts were

eaten off by his ſtore Sheep, the ſame Field was plowed up and ſown with Barley, but many young Cole Plants grew up among it, which obliged the Owner to have them pulled out about the Middle of *May*. It was this ſame Gentleman that had many of theſe Field Coleworts cut and ſent near thirty Miles to his Houſe in *London* for ſome Weeks together, and they proved exceeding ſhort ſweet Eating, when no other Pot Greens could be hardly got for Money.

Of grinding Cole-ſeed and making Oil of it. By ſome, this Oil is called Wool Oil, others call it Rape or Cole-ſeed Oil, others Lamp Oil. The Seed is ground by two Stones of ſeven Foot diameter each, which go round like that of a Tanner, and bruiſe the Seed on a flat one, 'till there is never a whole one left; and thus it becomes a Meal or coarſe Flower, which is put by half a Peck at a Time into a Copper Pan over a Fire, and when it begins to ſteam, it is then put into Bags two-and-twenty Inches long, and eight wide, two whereof are preſſed together at once. One Buſhel of this Seed will yield twenty Pounds of Oil, in Meaſure two Gallons and a half, that ſells in the *London* Oil Shops for about three Shillings a Gallon neat, but it is commonly mixed with freſh Oil to leſſen its Hogo, or ſtinking Scent, and then it is ſold for two Shillings a Gallon for Lamp-burning, and other Uſes. Four Quarters of this Seed, or thirty-two Buſhels, have been reaped off one Acre: And its Stalks are ſo uſeful, that in ſeveral Places they chop and burn them to Aſhes, which are ſo eſteemed for their being endowed with a ſtrong fixed Salt, that ſome ride above twenty Miles to buy them at one Shilling a Buſhel, for making Soap, with other Ingredients. In ſome Countries, they let Sheep feed on Rape or Coleworts till about a Fortnight

night after *Candlemas*, and then ſhut the Field up for letting all ſtand for Seed to make Oil, but then they are careful not to ſuffer the Sheep to eat down the Stalks too low. Others never eat them at all, but let them grow from the firſt to the laſt for Seed. Thus in *June*, and in this Month, I have given a larger Account of the Improvements of Turneps, and Rape, or Cole, than any Writer before, without being beholden to old obſolete Books, whoſe Authors wrote for different Climates, and whoſe Tenets in Huſbandry are no more to be compared with the preſent Practice, than old-faſhioned Country Houſes are with new built ones, whoſe Builders were ſo ignorant, but about two hundred Years ago, as to lay the firſt ground Floor above a Foot below the common Surface, in a clay Foundation, as many wofully experience in ours and other Parts, to the Deſtruction of their Healths. I have here only to add the Copy of a Letter ſent to Mr. *Houghton*, for encouraging the Sowing of Cole-ſeed.

A particular Account of a great Gain made by Means of Cole-ſeed. Sir, Since I have been acquainted with your excellent Deſign of promoting the Huſbandry of *England* as much as in you lies, I have been inquiſitive after ſuch as I think may tend that Way; and I will tell you what I met with in a late Journey I took to *Theobalds*: There is a conſiderable Gentleman, who hath incloſed a Piece of Ground containing ſix Acres; this he plowed and ordered as for Wheat, and about the Beginning of *July* he ſowed it with Cole-ſeed. He had alſo a hundred *Welch* Ewes, which he would have ſold to the Butchers, but they would give no more than half a Crown a-piece for them. Upon this, about the Beginning of *November* he put them into his Coleworts; they happened all to caſt their Lambs before *Chriſtmas*, ſome of them a Month before.

before. Theſe Coleworts fed the Ewes ſo well, that the Lambs were ſold off from eight to fourteen Shillings a-piece; when the Growth was eaten up cloſe, he ſold the hundred Ewes for a hundred Crowns, and then prepared his Land for Oats, which he ſowed there, and received from each Acre eight Quarters; and all this loſing no more Time than he would have done for a Crop of Wheat. This is no Romance, I had it from the Gentleman's own Mouth more than once: His Neighbours own it as much as could come within the Verge of their Knowledge, for they did not ſtand to ſee it thraſhed (although his Credit is Authority ſufficient) the Ground was no new broken up Ground; and for my Part I do not think the Matter unreaſonable (as to the keeping the Sheep, and the Quantity of Oats, it is poſſible others may not have Lambs ſo ſoon, and in ſome Places not of ſo good Price, this being but twelve Miles from *London*) for like Peaſe ſo great a Burthen (eſpecially being broad-leaved) muſt needs keep upon the Ground moſt of the Dews and Rain, and not ſuffer the Sun ſo ſoon to exhale them, which did certainly mellow the Ground, and for Dung and Warmth from the Sheep it could not want. I hope this will encourage others to do the like, which if I hear, it will encourage me to make further Inquiries of the like Nature: In the Interim I take Leave, *&c.*

Remarks on the Letter about improving Land by Cole-ſeed. What this Letter contains, ought to ſerve as an awakening Item to Thouſands who have the Opportunity of enjoying a proper Soil and Situation, and incite them to ſow it with Cole-ſeed; for ſo great is the Value of this Plant both to the Plow and Meadow Farmer for feeding his Cows, Oxen, Sheep, Lambs, Tame Conies, and Tame Fowls, *&c.* both in the Winter and Summer Seaſons, that I am perſuaded he will always

ways endeavour for it after he has once enjoyed its profitable Effects. But to remark by the Way, I obſerve, that though Mr *Houghton* was a ſerviceable Philoſopher, and for whoſe ſerviceable Writings the World ſtands for ever obliged to him, yet for Want of practical Knowledge in Huſbandry, he was at a Loſs to direct the Methods of preparing a natural Soil and Manure for this Plant, when, and how to ſow, cut, and enjoy it in its ſeveral advantageous Branches, which I have here in a more extenſive Manner, diſcovered by an illiterate Pen, in Compariſon of his, becauſe I write from the Field of Experience, as having ſown this Seed in my own Farm, and which I have not been without for Years paſt.

CHAP. IV.

Of WHEAT.

THE Damage that Flies do to Wheat. In this Month we ſometimes may perceive the little whitiſh-coloured Fly, eſpecially in hot dry Seaſons, when they breed in the Wheat Ear, and live in the ſame; but being exceeding ſmall, they do not a great Deal of Hurt: But when the Black Bug, or Fly, about the Bigneſs of a Flea, takes the Ear, as it ſometimes happens, even after the Blooming is over, they do a great Deal of Harm, by eating into the ſoft Kernel, and blowing a ſmall Maggot, or Worm, which at firſt is of a whitiſh Colour, and then grows reddiſh. Theſe are our Sorts of Locuſts, that ſometimes are waſhed off by heavy Showers of Rain, that alſo prevent their Riſing again.

To keep off Birds from eating Wheat Ears. In this Month, the moſt Miſchief is done to Wheat Ears

Ears of any other, becauſe the Field Fowls, after having a long Time ſuffered great Penury, and Want of the Food of Grain, do generally in this Month, lie very hard on the almoſt ripe Wheat Ears, which now becomes their delicious Meat, by the Kernels being got into a pretty hard Body. Now therefore it is, that Rooks, Crows, Daws, Magpies, Jays, and other Fowl very greedily attack the Wheat Ears that grow on the Outſide of Lands, for here they enjoy a leiſure, unmoleſted, ſafe Walk, and pull down thoſe Wheat Ears that are between ripe and green, by leaping or flying up to them; and where Flocks of theſe are very numerous, they may do the Farmer Abundance of Harm. Indeed of all the wild Fowl, I know of none that comes up to the Dove Pidgeon, for doing this Sort of Miſchief, becauſe theſe being protected in the Neighbourhood, and flying in great Flocks, are ſo well acquainted with the ſeveral Ripeneſſes of Fields of Wheat, that they are never at a Loſs to chuſe out that, which is moſt fit for their Purpoſe, and it is theſe which hover over the ſtanding Corn, and peck out the Wheat while they are on the Wing, or break off and carry away the Wheat Ear; and ſometimes where a Crop of Wheat is thin, they will ſettle in a whole Flock, march leiſurely over it, and devour great Quantities of it in a little Time; and what is ſtill more vexatious, there is no ſuch Thing as purſuing them at this Time with the Gun: Therefore, ſeveral of both Vale and *Chilturn* Farmers make Uſe of the following Methods, *viz.* They take a Piece of Turf, or Mould, about the Bigneſs of a Hat Crown, and ſtick two or three black Feathers of Rooks, or Crows, upright in each Piece, and in this Manner they lay many at about three Poles aſunder. Others will, inſtead of theſe, lay little Heaps of Smiths Aſhes, or Cinders: But theſe, are

are insignificant Scare-crows, in Comparison of what I shall publish in the Month of *September*, of a Composition to dip Feathers in, that will effectually answer this beneficial Purpose, by keeping off Crows, Rooks, Jays, Mag-pyes, *&c.* from new-sown Rye, Wheat, *&c.*

CHAP. V.

Of PEASE.

THE Management of an early Pea-crop. About the Beginning of this Month, the *Carolina* and some other Pease of the white Sort I saw full ripe to cut for Seed in *Kent*, that grew in their gravelly and sandy Soils, and accordingly they cut them with their two Instruments, called, in the hither Part of this Country, next *London*, *Swipe*, and *Pix*: With the Pix, or Picks, a Man hawls a Parcel to him with his Left-hand, and cuts them with the Swipe in the other Hand; but, in our *Hertfordshire*, and several other Counties, they have different Ways from this to cut their Field-pease up, as I shall shew by and by: Here they employ the same Ground, as soon as possible, either for a Crop of Wheat, or to sow it with Turnep-seed. The *Carolina* excellent Pea is a large whitish Sort, early ripe, and generally ripens together, therefore the best Sort to sow for Peasecods near great Towns, or for Seed. It is a Pea, that is but lately come into Reputation with us, and the true Sort is rarely to be got: In *February* last, I sent a Gentleman some into the North, and doubt not of hearing a good Character of them; and, if any have a Mind to propagate this Pea, I will send them by Land, or Sea-carriage, at a reasonable Price. *Barns*'s Hot-spur they also sow in Drills, and hough two or three

Times, as they grow in Fields, and cut them about the Middle of this Month. The Marrow-fats are of two Sorts, the White-eyed, and the Black-eyed: The Black is commonly left for Seed, but the White they generally cut to eat green. About *Feverſham*, they alſo ſow the *Cobham* grey Pea, the *Cobham* white, and Poor-land Pea. The three latter Sorts yields ſometimes thirty or forty Buſhels off one Acre. Some of theſe they ſow in Drills, and ſome in the random Way, by which they add a great Improvement to many of their Cherry-orchards, which are frequently kept under the Plough; and, as the Heads of their *Flemiſh* Cherry-trees are narrow, and ſtand every Way in exact Rows, they often get great Crops of theſe Sorts of Peaſe, as well as of Wheat, and other Grain. But, for giving a more general Account of Peaſe, I ſhall proceed as follows, *viz.*

A further Account of managing early Pea-crops. At *Sandwich* in *Kent*, in the Year 1738, being a hot, dry Summer, I ſaw Sacks full of the *Eſſex* Roading-peaſe put on board a Hoy, for their Sale in *London*, which were cut (as they told me here) three Weeks before the laſt Day of this Month. Here they cut their drilled Field-peaſe with what they call *Hook* and *Hincks*, which is a very commodious, quick Way; for by the Hincks, whoſe wooden Handle is about two Feet long, they pull up the laid Peaſe with one Hand, and cut them with a hooked Tool of the ſame Length with the other Hand, as in other Parts they do with the Swipe and Picks. Then, as ſoon as they are dry, they tie them up in large Bundles, and carry them Home in a *Hutch-waggon* (as they call it here) a Practice I never ſaw any where elſe; and yet they will wager, that they carry an Acre of Peaſe Home ſooner this Way, than others can in the common looſe Way; beſides which, they ſay, they can thraſh

thraſh more in a Day of them, than if loaded in the random Faſhion. Here, I am ſenſible, will be an Objection, againſt the Tying up of the Peaſe in Bundles, by Farmers in other Countries, for being a tedious, troubleſome, and more chargeable Way, than theirs; but it is ſurely true, that the *Kentiſh* Men are in the Right, and we in the Wrong; for as theſe Peaſe are cut and laid in Rows, it is not difficult for a Man, by a particular Sort of Rake, that I ſhall deſcribe in next Month, to rake them up on each Side of him into a Heap, and bundle them with great Expedition with a Band of the ſame Peaſe. I have been an Eye-witneſs of ſome of this Work; and, as a further Proof, they told me, that one of their Workmen being engaged in Harveſt, near *Yarmouth* in *Norfolk*, he perſuaded the Farmer to inn his Peaſe, and other Corn, the ſame Way; which he did, and found it anſwer ſo well, that many others in thoſe Parts follow the ſame to this Day. And as to the Thraſhing of them ſooner out, than in the common looſe Manner, I believe no Farmer will diſbelieve, becauſe the Truth of this is obvious by the Examples of Wheat-ſheaves, and reaped bound up Horſe-beans, *&c.* Now the Benefit of ſowing *Barns*'s Maſters, the *Carolina*, and other forward Sorts of Peaſe in Drills in *Fields*, is, that, by thus getting them quickly off, they will come to an early Market, and conſequently bear the better Price: After which, a Crop of Turneps may be got, on only one Plowing, without any Manure, if the Ground is in good Heart, which will ſerve either to draw and ſell, or to feed Cattle with them; and after theſe (if they are drawed, or eaten Time enough off) a Crop of Wheat may be obtained to a great Profit; ſo that, in about a Year and a half's Time, there may be three Corps taken off the ſame Ground. If the *Dutch* Turnep is ſown, they will be fit to pull up in

eight or ten Weeks; if of the red Sort, they wil be late: However, if Wheat cannot be ſown Time enough, Barley may; or, after the forward Peaſe are carried, a Crop of Cole-ſeed may be endeavoured for, for the Peaſe coming off in this Month, or in *Auguſt*, gives the Farmer a full Opportunity to enjoy this valuable Plant; or otherwiſe Rye may be ſown, either for feeding Sheep with in the Spring-time, or to ſtand for a Crop. About *Rickmanſworth* in *Hertfordſhire*, they ſow a forward Hog-Pea, called here the Puffin-Pea; which being fit to cut in this, or the Beginning of next Month, they commonly plow and harrow in Cole-ſeed on the ſame Land, for their ſuckling Ews to feed on them the Winter, or Spring following, that by ſuch juicy Food they may expediciouſly fat their Houſe-lambs for an early Market at *London*. Now the great *Spaniſh* Murotto-pea, that was ſown in Drills at three Feet and a half Diſtance, after being well houghed, and ſeveral Times turned in the Field, is in hot Summers ripe for Seed about the Beginning of this Month; and ſo are the *Carolina*, *Barns*'s Maſters, Marrow-fats, and other forward Sorts, that were ſown in Drills out of the Hopper of the three-wheel Plough, or out of a Hand-box; both which are much truer Ways, than out of the naked Hand; but the tranſcendent Drill-plough I muſt here once more recommend, as the beſt Inſtrument that ever was invented for Tenants to make Uſe of, for getting a Livelihood and paying their Rents; yet, where this could not conveniently be had, I have ſeen them make a Drill with the two-wheel Turnriſe-plough, whoſe chizzelly Point is made from one Inch and a half to two Inches Breadth, and then follows a Man with a long Box in his Hand, out of which the Peaſe run leiſurely and gradually into the Drill; and, when all the Field is ſown, they harrow long and croſs-ways. At another Place they ſow their grey

grey and yellow Sorts of Peaſe in Drills, at twenty Inches aſunder, in Fields, and afterwards employ the Horſe-break between the Rows, and then immediately uſe the Hand-hough to rake and hough the Earth up to the Roots of the Peaſe; and this they do twice or thrice in a Summer, beſides turning the Rows to the Sun now and then for their better Ripening. The *Cobham* Grey is the lateſt ripe. If the poor-land white Pea is ſown three Years on the ſame Ground, it loſes its Colour. With us in *Hertfordſhire*, we ſow the Horn, and *Windſor* grey Hog-peaſe, that are early ſown, and late ripe. The Maple-pea, for either Hog or Boiling, we ſow in *March*, and it is ripe in *Auguſt*. The *Hampſhire* Kid and the Beau-dye are alſo ſown for either Uſe; but the blue Pea is a very convenient Sort for our Farmers, becauſe we ſow them late in *April*, and cut them in *July*, or *Auguſt*. The *Cobham* Grey is a large, fattening Hog-pea, generally ripe with Wheat, but is apt to ſhed, if they ſtand a little too long before they are hooked. In *Eſſex*, about *Chelmsford*, they ſow the *Cobham* Pea broad-caſt in their clay Land, and the yellow Pea in their light. About the firſt Day of this Month, 1740, the ſtinking May-weed came up very thick among our Field Hog-peaſe, in the *Chilturn* Country of *Hertfordſhire*, notwithſtanding the cold and long dry Spring laſt paſt; but, as it happened, this Weed did not do a great deal of Harm, becauſe the Peaſe were then juſt beginning to bloom. The red Poppy alſo appeared, about this Time, among thoſe Peaſe ſown in light Lands, very thick; and ſo did the wild Parſnip-weed, but we were obliged to let them grow, becauſe we could not go to weed among the random-ſown Peaſe; however, it was very providential thoſe deſtructive Weeds did not take them in their Infancy, for then, in Courſe, the Crop of Peaſe had been much the worſe; which ſhews the great

great Value of the Drill-husbandry, which prevents with Ease these ruinous Weeds from spoiling Crops. Now it was that the Field Hog-pease ran into Bloom a-pace, by Means of the very hot Season, and so did the Field Horse-beans, that brought both into a sudden Podding; which when it so happens, in *Hertfordshire*, we call it *Stealing the Bloom*, and is accounted a sure Sign of a plentiful Crop. In my Garden, in this Month, 1740, I had a most plentiful Crop of the large white Nonpareil Pease, which is such a hardy Sort, that I sent some of them into the North, for a Gentleman to sow in his Field. The Union, large blue Pea we sow, at *Gaddesden*, in our Fields, and, where it is under a right Management, it commonly returns very great Crops in this, or next Month. The *Dutch* Admiral-pea is also a large, good Sort for Garden or Field, but the Dwarf Edgers, Sickle, Rose, and Dwarf Sugar-pease are more proper to be sown in Gardens than Fields.

CHAP. VI.

Of sowing Rape, or Cole-seed, Turnep-seed, and Weld-seed together, or Weld-seed alone.

A *NEW Improvement, by sowing Rape, Turnep, and Weld-seed together.* I never saw this done, but in one Place, in all my Travels, and that was in an Orchard, between Rows of Apple and Pear-trees, and is certainly an excellent Improvement of Land, particularly in such a Situation for the several Reasons I am going to advance.

I will suppose the Land to be a Gravel, a gravelly Loam, a dry Loam, Chalk, or sandy, which are Soils presently got into a Tilth by a few Plowings and Harrowings: Such Ground, if it is well manured,

manured, and it be an Orchard, wherein the Trees ſtand in Rows to anſwer every Way, as they did here, you muſt firſt prepare the three Sorts of Seeds with Flour of Brimſtone, as I have ſhewn in Chapter the ſecond, by mixing three Quarts of Weld-ſeed with three Quarts of Rape, or Cole-ſeed, and two Pounds of Turnep-ſeed, all together; which, when got in Order, muſt be ſown out of the Hand broadcaſt on one Acre of Ground, plowed in Broad-lands, by ſowing the Seed twice in a Place, which we do by caſting it along one Part of a Broad-land, and doing the ſame back again; a Method well known to every good Seedſ-man, who, in *Hertfordſhire*, is our Plough-man. After the Seed is thus ſown, we harrow it in only once in a Place, and the Work is finiſhed; but obſerve, that this Operation is to be performed with light Harrows, for, as the ſeveral Seeds are very ſmall, and near all of a Bigneſs, they will ſoon bury, if the Harrows are too heavy. This Piece of Huſbandry is beſt done the Beginning of this Month, that the Rapes and Turneps may have the more Time to obtain a full Head and Root againſt Winter, for feeding Milch-cows, or Sheep, or Lambs. This I call a very good Piece of Huſbandry, becauſe there are two Years Crops got in a moſt cheap Manner, for there is no Charge of Houghing on Account of the Weld-ſeed, which, after the Rapes and Turneps are eaten off, in the Winter ſevere Seaſons, when hardly any Graſs can be come at elſe, it will enjoy the Benefit of the Dung and Stale the Sheep left behind them, that in Courſe will greatly fertilliſe the Roots of the Trees and the Weld-crop, and cauſe a conſiderable Return of Profit to the Farmer next Year, even beyond Wheat, Barley, or any other Grain, as I have known it to do, when a Waggon-load of it was ſold for eight or ten Pounds to the Dyer. But a Perſon is not confined to ſow theſe Seeds in an Orchard,

chard, nor in a Tilth made on Purpoſe, nor in this Month; for this valuable, ſure Management may be let alone longer, 'till your Peaſe, or Wheat, or Barley, or Thetches, or Oats are all carried off the Ground; and then, on only one Plowing, theſe prepared Seeds may be ſown promiſcuouſly, as I ſaid before; and, if the Manure of Peat-aſhes-Malt-duſt; Oil-cake Powder, or ſuch like, be ſown over all the Seed, as ſoon as it is harrowed in, it may prove of great Service, and force on a plentiful Crop of all the three ſeveral Sorts of Vegetables, Time enough for the Farmer's Profit, and which will be the more improved, if the Sheep are folded on the ſame Ground; and, if this is done effectually, they may dreſs the Land to the Value of twenty Shillings an Acre, a Price that we commonly lay ſuch Folding, or rich Dreſſing at, in our Parts. Beſides, by ſowing ſo many Seeds together, a Man ſtands a much ſurer Chance of a Crop, than when they are ſown ſingle; for, if the Rape miſs, the Turneps and Weld may hit, or if both Rapes and Turneps miſs, the Crop of Weld, if it is a good one, will pay all Charge and Trouble, beſides putting, perhaps, five or ten Pounds into the Farmer's Pocket. And thus, I hope, I have made it appear, that this new Piece of Huſbandry may be an excellent Improvement, and eſpecially to thoſe engaged in ſuckling Houſe-lambs. But here may be an Objection made by the *Chilturn* Farmer, That the Weld will not come off Time enough to ſow the ſame Ground with Lent-grain: To this I anſwer, That it muſt be owned, that as the Weld muſt ſtand 'till *June*, or *July*, before it is cut down, it is too late for this Purpoſe; on which Account, it is only ſowing the three Seeds on a forward Pea, or Oat-ſtubble, and then the fallow Seaſon will return ſo great a Profit, as near three Crops, in this Time, where nothing elſe was to grow, and yet add a fruitful

fruitful Quality to, beſides cleaning and hollowing the ſame Ground. And here, for a further Illuſtration of the Management of Weld, I ſhall (beſides what I have ſaid of this profitable Plant in *May* and *June*) write what Mr. *Houghton* has collected of it, who ſays:

Mr. Houghton's *Account of Weld.* It is a yellow, large Plant, whoſe Leaves are of a greeniſh Blue, long and ſmooth, uſed in Dying. This rich Commodity grows in ſeveral Places wild; but it is alſo ſown in many Places in *England* to great Advantage. It will grow on any ordinary, or barren, dry, warm Land. It may be ſown after Barley, or Oats, when they are harrowed, this requiring only a Buſh to be drawn over it. A Gallon of Seed will ſow an Acre, it being very ſmall; and it is beſt to be mixed with Duſt, fine Sand, or ſome ſuch like, whereby you may take up a Handful. It groweth not much the firſt Summer, but, by preſerving it from Beaſts and Annoyances, after the Corn is gathered, you may, the next Summer, expect a Crop. Take Care to gather it in good Time, for, if over-ripe, the Seed will fall out; if under-ripe, neither Seed nor Stalk will be good. It is pulled, as they do Flax, by the Roots, and bound in little Handfuls, ſet to dry, and then houſed; after this they beat out the Seed, which is of a good Value, and ſell the Roots and Stalks to the Dyer; and it is of ſingular Uſe for dying of the bright Yellow and Lemon Colour.

A further Account of ſowing the three Seeds together, &c. In the Whole, I have this to write, That, by ſowing the three Seeds of Turneps, Rapes, and Weld together, in the fallow Year, the Weld is ſecured from the Fly and Slug, Cattle fed in the Winter and Spring with the two firſt; and, if Weather-ſheep are folded in a dry Time on the

ſame Ground, the Land will be dreſſed to the Value of twenty Shillings an Acre, a great Crop of Weld is moſt likely to be got off the ſame, and Fruit-trees Roots ſo inriched with the Dung and Urine, and Heat of the Sheep's Bodies, that it will, in Courſe, cauſe the Trees to bear prodigious Quantities of Apples, Pears, Cherries, Walnuts, or other Fruits; and, the next *September* following, a Crop of Wheat may be ſown on only one Plowing, or after the Land is got into a Tilth by ſeveral Plowings before. In one Part, it is common to harrow in Weld-ſeed with *French* Wheat, to guard and protect the Weld from Inſects, Weeds, and Drought; but this is not ſo good a Way as the former, becauſe here the Dreſſing is wanting. In another Part, they harrow in Weld-ſeed with Oats, as I have, in a foregoing Month, ſhewn.

CHAP. VII.

Of THETCHES *or* VETCHES.

Several Managements of Green Thetches. In this Month, the Thetches ſown in *March*, or *April*, are likely to be in Bloom; then, as ſoon as the forwardeſt are ſo, begin to mow them for feeding Horſes in the Stable, and they will not only produce a great deal of Dung, but fat them very ſuddenly, and keep them in Health. By thus letting your Thetches grow to a large Cover, they will kill Weeds, and ſo hollow the Ground, as to become an excellent Preparation for ſowing the ſame Land with Wheat, on one or more Plowings, with good Manure. Others will let them grow to a great Length, and, after rolling them flat, will plow them in as a Dreſſing for ſowing

and

and harrowing in Wheat on only one Plowing, as *French* Wheat is done for the ſame Purpoſe, and it will prove a great Aſſiſtance, eſpecially, to all heavy, ſandy, gravelly, and other ſuch Soils; but this ſhould be done, the latter End of this Month, that the green Haulm may have Time to lie and ferment, and rot in the Ground, for two or three Weeks, or more, before the Wheat is harrowed in. Or, if the Thetches are not too forward in their Growth, it may be better done in *Auguſt*. Others that ſowed Thetches, for feeding their Store-Sheep on them in the Field, will enjoy this Vegetable in a very great Perfection, becauſe this Feed will this Way create a great deal of good Dreſſing by the Fold, and at the ſame Time keep the Sheep in rare Heart and Fleſh, when Graſs in Fields, and on Commons, is ſcorch'd up. Thus, by ſowing Thetches in ſeveral Pieces of Ground, in one or more Fields at different Times, they will be ready for this Uſe in *May*, *June*, *July*, *Auguſt*, and *September*: An Improvement that is much put in Practice of late, both in Vale and *Chilturn*, and like to be more and more, ſince it is not only exceeding ſerviceable to the Ground the Thetches grow on, but alſo to ſeveral Sorts of Cattle, in a Time when no other green Meat, perhaps, can be got.

Mowing Thetches for Hay. In this Month, Thetches are in many Places juſt in Bloom, or, if they have begun to pod or kid, may be fit to mow for making Hay of them: To do which, cock them in little Wads as we do Clover-graſs, and, after two or three Turns, they may be hay'd enough to carry into the Barn. The Reaſon why ſome mow them while the Leaf is on their Stalks, and before they are ripe, is, becauſe the Leaves and Kids, being all green, become a rare Food in froſty Seaſons for Horſes, Cows, or Sheep, who will eat even the very Stalks up clean, to their quick

Encreaſe in Fleſh and Courage, for ſuch Fodder will ſupply both Oats and Hay: Whereas, if they were to ſtand 'till ripe, the Leaves would fall off, and the Cattle eat nothing but the Kids, becauſe the Stalks then would taſte bitteriſh, and be refuſed. This is an excellent Piece of Huſbandry tho' obſerved by few.

Eating Thetches with ſtaked Horſes. About the Beginning of this Month, it is uſual for both Vale and *Chilturn* Farmers (particularly the former) to ſtake their Horſes among green Thetches, that were ſown for this Purpoſe in the Spring-time, by which Means they can confine them from roving in common Fields, and even next to growing Wheat, or other Grain. Here the Horſes will leave behind them near as much Dung as they eat Graſs, to the great Enriching of the Land, becauſe by their Stale, and Dung, and Tread, the Ground will be brought under a Fermentation, and become hollow, and by which it will be the better prepared for the Plough, and the next Crop of Wheat.

CHAP. VIII.

Of French *or* Buck *Wheat.*

Several Managements of French *Wheat.* The eighth Day of this Month, in the wet Summer, 1735, I turned my Plough-Horſes into a Field of *French* Wheat, that was, I think, ſown in *May*, on a gravelly Loam, when it was near in full Bloom, and they eat it pretty well; 'till by one Plowing, on the fifteenth Day following, I buried the reſt for dreſſing the Ground to ſow common Wheat; but I did ſome Harm, becauſe I leſſened the Quantity, that ſhould have been altogether employed

ployed for this Purpoſe: However, it ſerved the Horſes in Plenty, when other Food was ſcarce, and they did ſome good in treading down the reſt. There are other Ways of managing Buck-Wheat for a Dreſſing; as *Firſt*, Some will roll it before they plow it in, that the Horſes and Plough may more freely work and turn the Stalks in. *Secondly*, Some will faſten a Buſh to the Beam or Stock, which, as the Plough is drawn on, beats down the Buck-wheat before the Share, for the ſame Purpoſe. *Thirdly*, Some, again, will mow it about half Heighth, and ſpread it all over the Field in a regular Manner with Forks; then they'll directly plough that, and its Stalks or Stubble in all together; after which, they make Uſe of an Inſtrument, with two iron Fangs at the End of an iron Handle, and a Hough a little above it: One is to jobb in what of the *French* Wheat remains uncovered, and the other is to pull the Earth over it. The Fork-part is three Inches long, and three Inches wide at Bottom. The Hough-part is fixed on the back Side of the iron Handle, about three Inches above the Fork-fangs, and the iron Handle is put into a wooden Stale. *Fourthly*, When *French* Wheat is early ripe, and in this Month plowed into the Earth, by ſome, it is plowed a ſecond Time, after it has lain a while to rot, in Order for ſowing common Wheat in broad or in bout Lands, in *Auguſt* or *September*. *Fifthly*, This *French* Wheat may be mowed for Seed, which, if a full Crop, will return a great Quantity, even four or five Quarters off one Acre. *Sixthly*, *French* Wheat may be ſown ſo late as the Beginning of *June*, and have Time to grow into a full Crop in *Auguſt* or *September* following, for plowing it in as a Dreſſing, and for common Wheat to be ſown and thrive on the ſame. Some mow and let it lie in Swarths to dry, and get in as they do Barley.

The

The Advantages of ſowing French *Wheat. Firſt*, As it is a triangular Seed, in Shape like a Beech Maſte, and about the Bulk of a ſmall Pea. It yields a great Quantity of white nutritious Flowers, with which ſome of the poorer Sort of People make Bread. *Secondly*, It is very ſerviceable for feeding and fattening Swine and Fowls, for which Purpoſe, in *Suffolk* and *Norfolk* in particular, they ſow a great deal of this Grain, not only for Dreſſing their hungry, ſandy Lands, but for raiſing Seed to feed and fat their Turkies and Geeſe, which every Year they ſend to *London* in vaſt Numbers. It alſo feeds Pheaſants, Partridges, Pidgeons, Yard-Fowls, *&c.* very expeditiouſly. But I think it was villainouſly applied when given to a Horſe for ſuddenly fattening him, to ſell and deceive the Buyer, as it was done at a certain Fair in the North; for, when Oats and Hay were put before him, the Horſe refuſed both, to the Wonder of the Beholders, and ſo continued for ſome Time; till, at laſt, a cunning Fellow, ſuſpecting the Bite, adviſed, that ſome Bread might be given him, and he greedily eat it; by which Behaviour, they diſcovered the Matter, and found that this Horſe had been fed with Bread made of *French* Wheat. *Thirdly*, Milch-Cows will feed on the growing Stalks of *French* Wheat in the Field, and milk very well on this ſucculent Plant, which, as ſuch, receives much Aſſiſtance from the Air, as all the very juicy Tribe of Vegetables, in particular, do. *Fourthly*, It is likewiſe excellent Food for Ewes or Weather Sheep, in the forward Part of Winter, if ſown in this Month or next. *Fifthly*, If mown in Time, it will ſerve as Hay for Winter Fodder. *Sixthly*, It kills Weeds, and very much hollows the Ground by its great Cover, retains the Dews, and keeps the Earth moiſt for nouriſhing its ſhallow Roots. *Seventhly*, near *Norwich*, they manage their

French

French Wheat this Way: With one Plough, they plow it in for a Dreſſing to their ſandy Ground, and immediately, that is followed by another Plough. The firſt Plough turns the *French* Wheat in, and the other turns a Furrow of Mould on that, by which it is all buried almoſt at one and the ſame Time; then they harrow in their Rye or common Wheat directly to great Advantage. *French* Wheat, as I have ſaid, is alſo ſown with Weld-ſeed, to protect it againſt Droughts, and the Damage of Weeds. If it feeds Swine, they give Peaſe after it, or Pollard.

The Diſadvantages of ſowing French *Wheat. Firſt*, It eaſily ſheds its Seed, for which Reaſon, it ſhould be plowed in Time enough, before it is too ripe, leſt it come up, and damage the ſucceeding Crop of Grain, which it is very apt to do. *Secondly*, Buck-wheat is very apt to rot in the Earth, and in the Ear, if ſown in wettiſh Ground. *Thirdly*, It is very ſubject to be hurt by Lightnings and Froſts. *Fourthly*, It is but a cold Dreſſing at beſt. *Fifthly*, If it is mown for Seed, it ſeldom fails of growing, little or more, in the two following Years. *Sixthly*, And what is worſt of all, it is a great Peeler or Robber of the Ground. *Seventhly*, At *Quidenham* in *Norfolk*, I ſaw they are at the Charge and Trouble of making a regular Fallow, and dung their heavy, red, ſandy Land for ſowing *French* Wheat, ſome in Broad-lands, and ſome in Bout-lands, according to the Intent of uſing it; for here the Sands lie ſo wettiſh, that they are obliged to uſe the Foot-plough. *Eightbly*, When *French* Wheat is mown for Seed, the Barley-crop, that follows it, is liable to be hurt by its Shoots, Blades, or Stalks. But if common Wheat follows the *French* Wheat, the latter is commonly killed by it, and the next Winter's hard Weather. Now,

to

to my Account, I ſhall add what Mr. *Houghton* ſays of this Vegetable.

Mr. Houghton's *Account of* French *Wheat.* He ſays it has an Herb of a ſtamineous Flower, having Leaves triangular, and black Seed, which is erect and eſculent: That it is a Grain exceeding advantageous on barren, ſandy Lands. It is much ſown in *Surry.* Leſs than of any other Grains ſows an Acre. It is naturally ſown as Barley, but later. It is alſo late ripe, and yields a very great Increaſe, and is excellent Food for Swine, Poultry, *&c.* when mown. It muſt be ſeveral Days before the Stalks are withered to be houſed. There is no Danger of the Seed falling from it. Dr. *Plott* (ſays he) in his *Hiſtory of Staffordſhire*, tells us, *Chap.* VI. *Page* 205, That an improper Sort of Wheat is ſown in the barren, hungry Lands of this County, commonly called *Buck-wheat*; not that it hath any Likeneſs, either in the Herbage, or Grain, to any Sort of Wheat; but becauſe, as he ſuppoſes, the Seed ſerveth among the meaner Sort, for the ſame Uſe, for the making of Bread. It is ſown either alone, or mixed with other Corn, *viz.* Barley, and ſo made into Bread and eaten; which, though leſs nouriſhing than Wheat, Rye, or Barley, yet more than Millet, or Panick, and that Nouriſhment good; for the Country People of divers Places in *Germany* and *Italy* feed only upon this, and yet are ſtrong, and fit for the hardeſt Labour. It digeſts eaſily, and fattens quickly, and eſpecially Cattle and Poultry, which, if not ſpeedily killed, it is ſaid, they will die of themſelves, ſuffocated with their own Fat.

CHAP.

CHAP. IX.

Of HOPS.

Manures prepared for Dreſſing Hop Plantations. Near *Canterbury*, I ſaw, in this Month, a Compoſition of Coal-duſt, or Aſhes mixed with Mud, to be turned afterwards, and incorporated well together, as a Preparation, to enrich that Ground which is to be made a Hop-plantation. Two thouſand Loads of ſuch, or other Mixture, were here laid on ſeven Acres of Land for this very Purpoſe; for as a Plantation of Hops may poſſibly remain ſo for a hundred Years together, it concerns the Owner to lay a laſting proper Foundation of rich Manure, which, with alternate Dreſſings, may ſo invigorate the Roots, as to cauſe them the better to withſtand Froſts, Blights, and other numerous deſtructive Incidents, to the great Increaſe of Hop-crops.

Plowing and cleaning Hop-alleys. The fourteenth Day of this Month, I ſaw them about *Sittingburne*, and *Canterbury*, draw the Horſe-plough with nine little Houghs, fixed in a triangular Manner through the Alleys. In another Plantation, they were drawing the Horſe-prong Plough in the like Form. In another, I ſaw a Man ſtriking in his three-tyne Fork crooked Tool; and, in a fourth, another was digging with a four-tyne Hand-ſpade. All which were in actual Uſe for hollowing and cleaning the Interſpaces or Hop-alleys of Weeds, to let in the Air and Rains, for now there is more than ordinary Care to be uſed to extirpate the Weeds, leſt they ſhed their Seeds, and damage the Plantation for Years after, and alſo for adding a Nouriſhment to the Roots of the Hops, to enable them the better to perfect their Setting or Kern-

ing in the greater Perfection; for the latter End of this Month, I ſaw ſome Vines that were in Bloſſom, and others that had ſome green Hops on them; and for this Reaſon, in this Month, ſome put Parings of Earth on the Hop-hills, which is a neceſſary Piece of Huſbandry: Yet this ought to be done with Diſcretion, for, if the Hops are furniſhed with a full Quantity of Sap, ſuch Earthing up may cauſe too great a Flux of Nouriſhment, and make the Vines run beyond their Bounds, and bear but few Hops.

Of gathering Vegetables that are planted to grow between Hops. Sometimes Dwarf-Roſes, that are allowed to grow in low Hedges, in the Middle of Hop-Alleys, may ſtill be gathered; and, if there happen to be a full Crop of them, they may (as they have) pay the Rent of the whole Hop-ground, by ſelling them to the Apothecaries, though four Pounds a Year be paid for each Acre, as is done at *Godliman*, or *Godalming*, in *Surry*. Here alſo I ſaw Hops grow on Poles among Strawberries, Beans, Turneps, Savoys, and Potatoes, and the Land not the worſe, as Mr. *Gardiner* told me, though they were not houghed; for which, I muſt confeſs, he had ſome Aſſurance, becauſe his Soil was a ſandy Loam, and lying next to the Town, he had Dung and Manure in ſuch Plenty, as to maintain all theſe in a fruitful Growth. The Roſes they dry on a Hair-Cloth on a Malt-Kiln, as ſoon as gathered, elſe they'll wet if laid in a Heap, and ſpoil. Their Fuel is Charcoal.

Of the Nature and Damage of Mould to Hops, and how to prevent it. Of late they de-bark their Poles, that they may dry ſooner, and laſt longer, than when they were ſet up with their Bark on, and alſo for preventing the Damage of the Mold, or Mould, which the wet Bark was in ſome Degree the Cauſe of, by retaining too long the Rain-Water, that gave a Dampneſs to the Vines and Hops:

Hops: Let your Dung be thoroughly rotted, before you lay it on your Hop-plantation, elſe it will canker the Roots of the Hop, raiſe a Steam that will cauſe the Mould to breed, and rot this profitable Vegetable, that by this Means, after it has afforded a fine Proſpect of a plentiful Crop, will dwindle away, and waſte almoſt to nothing. The ſmall underline Hops are the moſt ſubject to the Mould, and the large Top-ſort, the freeſt; for theſe ſeldom come under this Malady. To prevent this Misfortune, ſome put unſlak'd Lime on the Hills, that the next Rain may raiſe a Fume and keep off the Breed of the Mould, and the deſtructive Lice and Fly. Others will dreſs their Ground, about the Hills, with a Compoſition of Aſhes, Earth, and Dung, or Mud. Others will mix Salt, or Powder of Salt-petre, with ſome Earth or Mud, and, when thoroughly incorporated and dried, ſtrew it over the Alleys: Peat-Aſhes, or Soot, are excellent Manures for this Purpoſe. Some ſtrip off the Leaves from the Vines in this Month, to about three Feet high, in order to give the Sun and Air more Power, to prevent the Mould, and accelerate the Hops Ripening. In this Month, 1738, being a very dry Seaſon, I ſaw, Lice, Lady-Birds, and ſome Slugs, or Snails, on the Hop-Leaves or Vines, the firſt and reſt are bred by Dews, Fogs, and hot Seaſons; on the twenty-fourth I ſaw ſome Hop-leaves have three or four white Spots on them, which is a Degree of the Fen or Mould, and which made ſome ſay, it would ſpoil many of the Hops that Year. Accordingly ſome have ſuch a Suſpicion of Dung's contributing towards the Breed of the Mould, by a naſty Vapour or Effluvia which proceed from it, that they will not make Uſe of it in their Hop-plantation, as knowing that nothing tends more to this ill Quality than Dungs, and of them the Horſe-ſort exceeds, which is obvious from the Mould it creates, by the Fer-

mentations that accompany it. In wet Summers, Hops are moſt ſubject to be infected by the Mold, which begins at the Top of the Stalk next the Hop, and ſo goes, or eats into the Hop, 'till it ſpoils it. About St. *James*'s Day in this Month, Hops are commonly in full Bloom. It was in the Month of *Auguſt*, 1740, by the great wet Seaſon that then happened, the Mould bred in the Hops, and made them of little Value, ſo that the good Sort ſold very dear.

To help Hop-vines when they over-run their Poles, The common Number of Poles to each Hill are three; but when there is Occaſion, ſome add a fourth, called a Helper: This Helper is a larger Pole than the reſt, and in this Month, when the Vines are perceived to out-run their Pole, this Auxiliary one is put into the Ground, and a ſtrong Hill made about it, to keep it firm, for catching the over-ſhooting Vine and ſupporting its Growth, 'till gathering Time. But more of Hops in next Month, when I intend to give a more particular Account of their Gathering, and other Matters relating to this moſt uſeful Vegetable, than any Author has hitherto done.

CHAP. X.

Of Cows *and* Calves.

Of the Profit and Loſs of Milch-Cows. This Article cant't be calculated to a Certainty, becauſe there is much Diſproportion in the Difference of Cows, their Feed, and the Value of their Milk. At *London*, undoubtedly, they have the beſt Market in *England* for their Calves, their Milk, and their fat Cows. Their Meadow-Land is about fifty Shillings an Acre, *per Annum*. At *Gaddeſden* thirty, and near our Country Towns forty. About *London*,

London, with their early and late rank Graſs, Hay, Turneps, and Grains, their Cows are kept in the higheſt Degree of Milk, and, at the ſame Time, are feeding for the Butcher; by which they ſell them out-right for a top Price; or exchange them for New-milch lean ones, at little or no Loſs; but the firſt is their common Way: Beſides which, they buy their Grains at a Shilling, or Sixteen-pence a Quarter, when we, and in moſt Country Towns, pay three Pence a Buſhel for them. This is a main Article of Profit, as it is a Feed which produces the greateſt Quantity of Milk, though of the thinneſt and moſt watery Nature, far ſhort in Goodneſs, to that cauſed by our Upland Meadow-graſs, and Hay alone; and yet they ſell it for more than a Penny a Quart, in a Meaſure that is leſſer than a Wine Quart, while we at *Gaddeſden*, twenty-ſeven Miles from *London*, ſell three Wine Pints for a Penny; and at our Country Towns, they ſell a *Wincheſter* Quart of Milk, all the Year, for a Penny: So that the *London* Cow-keeper has a conſiderable Advantage of the Countryman, in the Feed, in the Price of Milk, and in the Sale of Cows and Calves. Nor muſt we pretend to advance our Intereſt, by changing a Cow when ſhe begins to ſhrink in her Milk, for a New-milch'd one; if we do, it is very likely we may catch a Tartar, and loſe by the Exchange. On the contrary, when we have a right good Cow (which is rare) our Buſineſs is to keep her ſome Years, and eſpecially now the Way is found out, to make a Cow take Bull, and ſtand to it, and that by more than one Sort of Means, as I have made known in my laſt Monthly Book, which will prove a very great Benefit, both to private Perſons, and the Publick in general; or otherways to turn ſuch a Cow (eſpecially if ſhe goes Gheſt, or Barren) into a Vale, or Feeding-ground, to fat. In the Vale

of

of *Aylesbury*, five pounds a Year is reckoned the Profit of one Cow, supposing her to yield about four hundred Gallons in that Time, either sold by the Quart, or made into Butter or Cheese, or in Suckling Calves. A certain Author says, if we make Butter only, about two hundred Weight may be expected from a middling Cow a Year, besides a hundred Weight of Skim'd-milk Cheese, and Whey for Hogs. Or that, if we make a Raw-milk Cheese, we can't compute it at more than two hundred and fifty Pounds Weight in a Year, and about a hundred Weight of Whey-Butter, and Whey for Swine. As to the Suckling of Calves, I have to write, that there are several Circumstances in Favour of this Undertaking; as when a Person lives in a Country where they are plenty, or has Sons, but no Daughters for Dairy-maids, or where Grains can be had cheap, that will produce a thin, bluish Milk, which is the most natural for Suckling Calves. I say, then, I could never find that a Cow would suckle and fatten above three or four at most, besides her own Calf, in one Year, and then the Amount of Gain will be but about five Pounds; for a Cow is a great Devourer of Hay in Winter, and can easily eat one hundred and a half Weight of it, if not two hundred, in one Week, and even then will not return so much Milk, with altogether this dry Food, as she will with half that Quantity, and her Fill of Grains, Turneps, or other wet Meat besides. This is a Farmer's Account, who keeps the same Cows Years together, that vastly differs from that calculated by a Person for the *London* Cow-keeper, who, in a Book, says, That by exchanging Cows, when they fail in their Milk, for others newly calved, he may have three Gallons of Milk a Day, *Winchester* Measure, all the Year, which, at a Penny a Quart, amounts to eighteen Pounds five Shillings a Year

per

per Cow; and this without any Loſs by the Exchange, becauſe a ſtale milch'd Cow, being near Beef, is on a Par with a new-milch lean one and a Calf by her Side. But the Country Farmer, who has nothing but Graſs, Hay, and Straw all the Year, muſt come to another Reckoning, and calculate nearer the *Iriſh* Account, which computes a Cow to yield three Gallons of Milk a Day for the firſt ninety Days; for ninety Days more, one Gallon; and for ninety more ſcarce one Quarter of a Gallon, and for ninety more ſhe is dry. It is true, that our Cows are ſomething bigger than the *Iriſh* Sort; but it is plain that the Farmer cannot go to the ſame Market with the *London* Cow-keeper, and get a new Milch-cow for a ſtale one, unleſs he carries twenty, or forty Shillings in his Pocket to give in Exchange, which will cauſe ſuch a Diſcount, as will not make it worth his While to go this Way to Work. Nor will ſuckling of Calves anſwer, ſo well as a Dairy, but on theſe following Accounts: If your Keeping is artificial Graſſes, then Suckling is better than a Dairy, becauſe both Butter and Cheeſe from ſuch Feed is commonly rank, and, at beſt, meets with a lower Market than ordinary; but, when ſuch Graſſes are employed in ſuckling of Calves, the ill Taſte of the Milk is of no Importance, for in the Veal, it is not perceived. Likewiſe, if you have a groſs, marſhy, or ruſhy natural Graſs, Suckling, for the ſame Reaſons, is to be preferred. So, if you live in a Place, where there is nothing but thick, or troubled Pond, or Ditch-waters, a Dairy here will not anſwer ſo well as Suckling, but is beſt carried on by the Feed of Upland, or other Meadow-graſs, and where clear Water is in great Plenty; for as this is the beſt of Food for Cows, it ought to be put to the beſt Uſe, and that is in a Dairy.

The Gaddeſden *Way of managing Gheſt or Barren Cows.* Here we for the moſt Part carry on the Suckling Buſineſs, becauſe we have good Land for Clover, and other artificial Graſſes, which generally yields ſuch Burthens of them, that one Acre will produce as much Milk (though coarſer) than two of natural Graſs; but there is this Inconveniency attends Suckling: By the vehement Lugging and Drawing of the Milk by large ſtrong Calves, the Cows are not ſo prone to take Bull, as thoſe are in the Dairy-Service, and when they happen to miſs their Seaſon. There are two Times in the Year, that we fat this Sort, *viz.* About *May-Day* and in *Auguſt* we turn them into the Vale from our *Chilturn* Country to fat them, and in about twenty Weeks, in ſome Years, they will get fat, for which we pay one Shilling or Sixteen Pence a Week. If in *May*, they come out for Killing in Harveſt. If in *Auguſt*, about *Chriſtmas*. For at theſe two Seaſons, Beef commonly ſells beſt to the Butcher, which may put five or ſix Pounds into the Farmer's Pocket, and thus enable him to buy in a Milch Beaſt, with a Calf by her Side, for four Pounds, or four Pounds and ten Shillings. The Overplus is to defray the Charge of her Fatting. And thus he makes a dry Cow buy a wet one.

How to make Crams that will whiten Calf's Fleſh. It is no Secret that Bleeding a ſuckling Calf now and then clears the Fat, and that it does not much alter the Colour of the lean Part. But I will here tell you a Way to do both in ſuch a Manner, that a Calf will ſell for more Money than otherways it would. I mean to make ſuch Calf's Fleſh, which is naturally red, to become white. To do this: Take a Half-penny worth of Senna Leaves, and pour a Quartern of Gin on them in a Pot, let them ſtand an Hour to infuſe; then with

with the Liquor make Crams with Wheat Flour, and give three of them at a Time, dipped in Milk, in a Morning immediately after Suckling, and do the ſame once next Day, twice in all, and it will purge the Calf and cauſe its Fleſh to become white, by carrying off all Impurities; but if the Purging continues too long, powder ſome Chalk fine, and throw a Parcel of it into its Mouth.

How to manage Drove-Calves to make them white. At a Fortnight, or three Weeks End at fartheſt, ſuch Calves ſhould be blooded in the Neck Vein, in order to draw the heated or fiery Quality out of the Blood, which has been contracted by ſuch Drift. About ſix Weeks old bleed it again, by cutting off two Inches of the Tail's End, and if it do not bleed to your Deſire, frap about it with the Handle of a Knife, or otherwiſe, and let it go without Searing; the ſame do a Day or two before it is killed, by cutting off a Piece of the Tail a ſecond Time, for, by thus bleeding the Calf behind, the Kidney-fat is cleared, and the Fleſh in ſome Degree improved. But take ſpecial Care you never take away too much Blood at a Time, for this is of bad Conſequence.

How to take off an oily Quality that ſo affects ſome Calf's Fleſh, as to make it taint before it can be ſent to a London *Market.* To do this, ſome are ſo curious, that, after a Calf is a Month old, they will open its Mouth every third Day, and throw as much fine powdered Chalk as will lie on a Crown-Piece, beſides giving it the Powder conſtantly in a Trough, and Chalk-ſtones in a Rack, or hung up by a String; and although a Calf does not effect to eat Chalk like a Houſe-lamb, yet they take Delight in licking it, and ſcraping it makes the fineſt and propereſt Powder for them. The Effect of Chalk is of Service ſeveral Ways: Firſt, it is ſuch a Dryer

as to take off a great deal of the oily or watery Part of the Fleſh, which ſome Calves ſo much abound with, as to cauſe the Veal to ſtink in a little more than twenty-four Hours Time in muggy, hot Weather. An Inſtance of this happened thus: My Butcher killed a Calf for me, and two others for my Neighbour, on *Saturday* the 22d Day of *September*, 1739, and, by ſetting out on the *Sunday* Evening, he ſold their Carcaſſes in *London* on the *Monday* Morning: One weighed twenty Stone, that he ſold for thirty Shillings; the other weighed fourteen Stone, and was ſold for twenty-ſeven Shillings; but mine that weighed likewiſe fourteen Stone, fetched thirty-three Shillings. The Reaſon was, becauſe the other two had an oily Fleſh, that tainted, after carrying it in the Night-time but twenty-ſeven Miles, when mine, which had a drier Fleſh, kept ſweet till ſold.

How to make a Calf's Gum and Eye appear white, while it is in the Market for Sale. An arch Calf-Suckler being at *Smithfield*, and perceiving his Calf's Gums to look a little reddiſh, bled it in a By-yard in the Neck, and ſewed up the Wound with a Glover's ſquare Needle, and Thread or Silk of a proper Colour; on which he ſuddenly poured a Penny-worth of Brandy down the Calf's Throat, which preſently made it very ſick; that ſoon cauſed the Eye and Gums to look of a tallow White, and then having it to the Place of Sale, he ſold it to his Deſire.

Other Reaſons why Calf's Fleſh will not keep long. If a Calf is killed with a Belly-full of Meat, the Fleſh will not keep long. In Thunder Weather, Veal will hardly keep ſweet twenty-four Hours, or if an Ox or a Calf is bled a little before it is killed, the Fleſh will not keep long, becauſe the

Veins

Veins have not Time to dry, like thoſe of a Beaſt that was blooded ſome Time before.

To prevent the Garget in a Cow's Bag. Take a Quart of Chamberlye, three Cloves of bruiſed Garlick, half a Handful of Arſmart ſhred ſmall, one Ounce of Wood-ſoot, give all to the Beaſt, Blood-warm.

To cure a Gargetty Bag. Take of long Pepper, Turmeric Root, and Fenugreek ſeed, each an Ounce, beat all into a groſs Powder, and boil it in three Quarts of Ale, and give the Whole warm, with four Spoonfuls of Honey, or a Quarter of a Pound of freſh Butter. About three Hours after, give two or three Quarts of Milk-porridge, with a little Butter in it, warm out of a Horn, And for a topical Application, rub the Bag well with Nettles, and then bathe it with a little camphorated Spirit of Wine, and repeat if Occaſion require it.

For a Cow whoſe Fundament comes out before Calving. Boil a Gallon of Malt in fair Water to a thin Marſh, cover it over, and when lukewarm, give it her in a Tub to eat; but if ſhe cannot ſtand, then give it her out of a Horn. Reſt a Day, and, if Occaſion require, repeat it.

To ſtop a Cow's Scouring. Give her two Drams of Ipecacuanha in half a Pint of lukewarm Ale.

A ſecond. Take of Bean-flour, or Armenian Bole, of each two Ounces, mix theſe with a Quart of red Wine, and give it her.

To recover a Cow's Cud. Take ſome brown Bread, Salt, and Rue chopped ſmall, mix them well, and put them into one Side of her Mouth in her Cud-bag, and it will warm her Stomach, and ſo remedy this Misfortune, which is cauſed by a cold chilly Stomach.

To cure a Cow that piſſes red Water. Bleed her firſt in the Neck, then take a Pint of Cheeſe Rennet,

net, and give it in a Quart of Milk with a Penny-worth of Saffron finely beaten, and a new-laid Egg or two mixed in it.

A Second. Take a Quart of Buttermilk, and Beat some Bay-salt into it; but, if the red Water clots or grows thick, give her a Quantity of Rye Meal in Milk, warm from the Cow.

For a Cow that slips her Calf. In Case your Cow slips her Calf, remove her directly from the rest, for it often happens to be fatal to many others by a sympathetical Quality, which causes several, if not all in her Company, that are forward in Calf, to come under the same Misfortune. Then give her a Handful of Mugwort, cut small and boild with half a Pint of Treacle, in three Pints of Ale, as soon as it is cool enough out of a Horn, which, being a warm Herb, opening, and cleansing, will bring away all the Remains.

The Hides of Cows, their Value and *Nature.* These, with us about *Gaddesden*, are commonly sold for Two-pence, or Two-pence Half-penny *per* Pound, as they are better or worse, and at that Rate, a middling Hide will come to about fifteen Shillings. Of late Years there is a great Difference in the Breed of Cows, by the Care that is used by Graziers and others, who endeavour, what in them lies, to have taper-headed, thin-necked, and the thin skinned Sort, for the Sake of their giving a large Quantity of Milk, for it is a Maxim, that where much Leather is, there will not be much Milk. Whereas formerly they used to breed the thick-headed, short-necked Sort, and then their Leather would be of the greater Substance. The Hide of a Cow, that dies by some Disease, is called a Murrain one, that seldom sells for more than half Price.—Mr. *Houghton* says, a Hide is sometimes bought by

by Weight in *London*, but oftner by Hand. If by Weight, the Tanner commonly gives eighteen or twenty Pence a Stone. If by Hand, they give all Prices, even to thirty-five Shillings for one of a large Ox, for ſuch a one with Horns, Tail, *&c.* weighs eighteen or twenty Stone, reckoning eight Pounds to the Stone.—— But of Cows, their ſeveral Diſtempers, Cures, and other Management, I ſhall, in next and other Months, give large and beneficial Accounts.

CHAP. XI.

Of SHEEP.

TO kill Ticks or Sheep-lice, and keep Sheep in Health. In the laſt Month, I have wrote largely on ſheering and managing Sheep afterwards; but I have ſtill to add, that it is practiſed by ſeveral Farmers, to waſh their Sheep twice, effectually to get the Scurf or Scab off their Skins, and kill all the Ticks or Lice. Therefore, though they waſh firſt in order to clean the Wool, yet ſome bring them to the River again, after they are ſhorn, to have them rubbed and ſcrubbed for this Purpoſe. But I cannot commend this Practice, for its being done in freſh cold Water, becauſe ſuch is apt to chill their Blood, give them the Gripes, or elſe bring on the Breed of the red Water, *&c.* On which Account I would adviſe the Uſe of ſalt Water, inſtead of freſh, as I have more aptly wrote on in *June*, for then it would fully anſwer this and ſeveral other ſanitaneous Ends. Thus the poor Sheep will be delivered from their mortal Enemy, which, when they are in great Numbers, and a

Sheep

Sheep is poor, they ſometimes bite him ſo, that they take him off his Stomach, and cauſe him to pine to Death.

To cure the white Scour. In the wet Summer 1735, the white Scour proved fatal to great Numbers of Sheep, as I obſerved in laſt Month, and is moſt rife in wet Summers. Therefore, to thoſe Receipts I have already publiſhed for this Malady, I add the following; Mix a little Salt with three Spoonfuls of old Verjuice, and give it a Sheep. But if it is very bad, add a ſmall Matter of Gin to it.

Giddineſs in a Sheep. If the Diſtemper proceeds from the Blood, ſtamp Garden or wild Thyme, and ſqueeze out the Juice; then ſtrain it and give three Spoonfuls at a Time to a Sheep, three Mornings together, and it is ſaid by my Sheep-Jobber to be a certain Cure. But if it is cauſed by Bladders in the Head, then the Caſe is deſperate, and it muſt be opened, to take them out, with Sciſſars or otherways, which ſome have done by cutting out a Piece of the Scull, and placing it in again with a Pitch-plaiſter.

Another for the ſame. Blow the Smoke of a Pipe of Tobacco up its Noſtrils.

To cure the Gripes or Pains in the Bowels. This is often occaſioned by folding in wet Weather, or too early, or too late in the Year, which is known by the drawing up of their Belly, ſpurning with their Hind-feet, lying down and ſuddenly ſtarting up. For this, take a Handful of Rue and Southernwood, boil them with one Ounce of Coriander-ſeed in Spring Water, and give it to a Sheep, Milk-warm, after the Ingredients are ſtrained from the Liquor.

For the Swelling of the Belly of a Sheep. This commonly comes by the Sheep's eating ſome unwholeſome Herbs, but generally by licking up the

the Glow-worms, which ſometimes lie in great Numbers on our Commons and Fields. In this Caſe cut a Bit of the Tail off, and mix the Blood with a little Salad-oil, Juice of Rue, and Flour of Brimſtone. Give this to a Sheep as ſoon as you can, and drive her about for an Hour. It is ſaid to abate a Swelling, though near burſting.

Scabby Sheep to cure. In *March*, 1736, many died of the Scab, that they got in the wet Summer before, by the Wetneſs of a long Seaſon, driving too cloſe together through narrow Lanes, and lying too near one another in the Fold, inſomuch that they peeled and were ſcabby in a moſt ſad Manner, for which the Ignorance of a great many applied only Tobacco-water, or ſome other outward Application; which ſometimes does anſwer in ſlight Caſes, but when very bad, it drives the Diſtemper in, and in Time kills the Sheep, inſtead of curing it. Therefore take the following Directions:——Give a Sheep in the firſt Place a little Flour of Brimſtone in near half a Pint of Ale, do this twice; and then make Uſe of this Liquor to kill the Diſtemper outwardly. Take half an Ounce of Tobacco, a Quarter of an Ounce of white Hellebore Root in Powder, a Piece of Soap as big as an Egg, with as much Roll-Brimſtone as will lie in the Bole of a Spoon. Boil all theſe together in three Pints of Chamberlye, and keep it in a Stone Bottle for your Occaſions; and when you want it, rub it well on the infected Places, and it will ſurely kill the Scab in a fine Manner, much better than that violent Application of Spirit of Turpentine mixed with Brine, or that dauby naſty Medicine, Tar.—— To this I add one more.

A Second Remedy. Rub the Scabs with your Fingers or otherways, and then part the Wool, and

and pour over them a Mixture of Water, Salt, and Gunpowder, and it will kill them.

To cure a Sheep of a Plethory, or being too full of Blood. After a tedious Winter's hard Fare, it ſometimes happens that a full Bite of Graſs does not get up till *May* or after, and then often enſues a fatal Diſtemper, from Rankneſs, or the Sheep's being too full of Blood. On which Account particular Regard muſt be had to Sheep, who, above moſt Creatures, are apt to ſuffer by this. Therefore when you ſee them pant much, and heave like a broken-winded Horſe, and now and then ſtretch themſelves and look heavy; it is a ſure Sign of their wanting to be let Blood. To perform which, hold your Finger hard on the Eye-vein, and it will riſe; then with a Penknife, or Launcet, make a ſmall Slit long-ways, and let it bleed without taking any other Care of it, and it will prove a preſent Remedy.

To cure the ſore Heads of Sheep. The latter Part of *June* and all *July* in a late hot Summer, our Folding-Sheep, after Sheering, were ſo attacked by the Flies, that to allay the Itching, they ſcratched their Heads ſore, then bred Maggots that would deſtroy the Sheep if they are not timely prevented, by their eating into the Creatures Brains. To cure this, we took Pitch, Tar, Hogs-lard, and Salt, and boiled them together a Wallup or two. When cold, we anointed the Place, and, had there been Occaſion, we had renewed it. But one of my Neighbours, inſtead of Pitch, put in Brinſtone, that run down into the Sheep's Eyes, blinded ſome, and ſo fretted others that they pined very lean, and killed ſome outright.

A Way to kill Sheep-lice, or Ticks, as it is practiſed in the North. Theſe brown Vermin, being as large as ſmall Thetches, are very ſtrong Biters,

ters, and plague this poor Animal to that Degree, as to make it pull off its Wool with its Mouth to get at its Enemy, ſtop their Eating into its porous Skin, and allay its Itching. And as the Ticks are almoſt continually doing this Miſchief, the Sheep enjoys but few Intervals of Eaſe, ſo that its Meat does not do it half ſo much Good as if it had none of theſe Lice; nay, ſometimes they ſo diſtreſs a Sheep, as to cauſe it to pull itſelf near naked, and pine away to Death. Therefore here I ſhall communicate an infallible Remedy, that is frequently made Uſe of in the North of *England*—— Take one Quart of Spring-water, and diſſolve in it one Dram of Sublimate, Cream of Tartar half an Ounce—— part the Wool here and there, then, with a Feather dipped in this Liquor, draw it along the Skin in ſeveral Places. Do this again if you ſee Occaſion, but once commonly does.

A further Account of the Foot-Rot than what I publiſhed in laſt Month, and how to cure it. Take a Piece of Allum, white Vitrol, and one Ounce of white Mercury, but moſt Allum; powder and keep all in a Quart of Spring-water, then pare the Foot and anoint it with a Feather.

Another. Firſt ſeparate the Sound from the Infected; then take four Ounces of Copperas, two Ounces of Verdigreaſe, one Ounce of white Arſenic, and half an Ounce of ſublimate Mercury. Boil all theſe in a Quart of old Verjuice; when cold, pour it off, and keep it in a Bottle for Uſe. Obſerve to boil it in an iron Pot, and when you uſe it, beſmear the Place with a Feather. This is reckoned beyond Oil of Vitrol or Aqua Fortis; however, when any of theſe Medicines are uſed, a Rag ſhould be tied about the Foot, and the Sheep kept up for an Hour or two afterwards——— But more of theſe in next Month,

when I intend to give a farther Account of ſeveral valuable Receipts for divers Maladies incident to this moſt uſeful Creature; and the rather, becauſe, with Surprize, I have not found one Shepherd hardly in ten, that I have converſed with, that knows any Thing of Medicines proper to give a ſick or hurt Sheep.

Folding Sheep. Now carry on your Folding with all Diligence, becauſe one Night's Folding in this Month is worth two or three in *April* and *May*, for preparing the Ground for a Wheat Crop. It is true, that the laſt Summer, 1741, was ſo cold, being attended with ſevere Froſt, that the Fold did but little Good to Wheat (for in its own Nature it is a cold Dreſſing) but in *June* and *July*, when the Weather became warmer, the Wheat flouriſhed to Admiration. Therefore good Feeding in the Day Time, and Folding at Night, will in this Month effectually ſupply the beſt of Manure, and ſo fertiliſe moſt Sorts of Land, as to produce the greateſt Crops of the Golden Grain, if the Seaſon of the Year and other Accidents are favourable to their Growth.

CHAP. XII.

Of Making CHEESE *from Clover-Graſs.*

HOW good Cheeſe is made from Clover-Graſs. To make this Cheeſe has puzzled many, ſo that they could never attain to do it well, and therefore laid it aſide; becauſe Clover being a rank Graſs, and the more ſo when got oldiſh, it will cauſe the Cheeſe to hove, be full of Eyes, taſte ſtrong, and ſoon rot. But could there be a Way found out to make good Cheeſe from ſuch

ſuch bad Graſs, it would be of great Profit, by Reaſon Clover will maintain double the Number of Cows that natural Graſs can; in order to which I communicate the following experienced Method, that I never knew but one Man's Wife do in our Parts of *Hertfordſhire:* She would put the Curd in the Preſs for four Hours, at the End of which ſhe would take it out, break it ſmall with her Hands, and throw it into ſcalding (not boiling) Whey for a Quarter of an Hour; then take it out, and work it well and put it into the Preſs again as uſual. This is called *Scalded Cheeſe*, for, by putting it into the Whey, it takes off the Rankneſs of the Curd, that would otherwiſe make the Cheeſe hove. If it afterwards cracks, they fill the vacant Places up with Butter, and it is cured. Sometimes they work two Cheeſe Curds into one, and make a thick Cheeſe this Way, almoſt as thick as the *Cheſhire* Sort. This Woman's Way was commonly to mix one Meal of new Milk with two of Skim for making her Cheeſe. And ſo perfect was this Woman ſkilled in the Dairy Buſineſs, that her Huſband aſſured me, ſhe would make as good Butter and Cheeſe from Clover-Graſs as need to be eat; which with many other good Services that ſhe performed, ſuperior to her Neighbours, in the farming Way, made her Huſband greatly lament her Loſs, for he could never after, in many Years, get a Servant Maid that could manage the making of Butter and Cheeſe as well as his Wife.

A particular Character of Cream-Cheeſe. A Dairy-man, who lives at *Leyburne*, in *Bucks*, told me, that though they all call it Cream-cheeſe, it is no more than all new Milk, which he makes till *James*'s Tide, by preſſing each Cheeſe one Day, and when turned once, he preſſes it again for all the next Night; and after it has lain a

Week, and turned among Ruſhes, it is done. This Sort he ſells commonly for Two-pence Farthing *per* Pound, to Men that carry and ſell it about *Hertford* Town and others nearer *London*. But his is made thicker than the common Sort of Cream-cheeſe, by making each weigh three Pounds. This he does to increaſe Weight and Money. Then, from *James*'s Tide to *Michaelmas*, he makes the thicker keeping Family Cheeſe, after that Butter for Winter Uſe.

CHAP. XIII.

Of BUTTER.

HOW to keep Cream ſweet a Week together in Summer. I know a Vale Woman whoſe Cellar is but three Feet deep from the common Surface, and who churns but once a Week, Summer and Winter, by Means of her boiling Cream juſt a Wallop or two the ſecond or third Day. Afterwards ſhe preſerves all ſweet by adding raw Cream to boiled Cream, and ſhifting it daily into freſh glazed earthen Pots: So that the firſt boiled Cream, and Shifting, ſave the reſt from ſowering.

Whey Butter, the beſt Way of making it. She boils the Whey and ſkims off a Cream as it riſes. When cold it makes a ſtiffer Butter, than Whey Cream got in the old Way.

The Damage of ſetting Milk hard. Setting Milk hard makes the Butter bitter. Setting hard is, letting the Milk ſtand too long without Skimming, whereby the Cream gets a very thick Head. Tho' you boil the Cream, yet if you ſet the Milk hard, the Butter will be rank.

Of

Of Churning Butter. The Degree of Heat Cream is in, when put into the Churn, is a main Matter; therefore moſt firſt ſcald the Churn in Winter, and then directly put the Cream into it. In Summer, ſome put boiling Water into it, to ſtand about ſeven Minutes; and when that is out, they put in cold Water, to ſtand a Quarter of an Hour. It is generally obſerved, that unleſs it be an Hour before the Butter comes, the Butter-milk will be thick, and the Goodneſs not out; but by Chance ſome have had it good by churning only half an Hour. Churning too faſt, gives the Cream the leſs Opportunity of working. A Man, at *Crafton*, in *Bucks*, was thirteen Hours churning in a Barrel Churn, before the Butter came, and yet did it near the Fire. Two or three Spoons of Pewter, put into a Barrel Churn, make the Butter come the ſooner. Butter, in Summer, ought to be churned very early in the Morning, and when it is come, let it lie an Hour in cold Water before it is made up; for too much Heat makes it rank and bitter, and though you ſalt ſuch Butter over again, it will not mend it. Put a Pewter Spoon into a Pitcher, and if you ſhake it enough among the Cream, Butter will come. Some Land cauſes Butter to come late, and ſo do ſtale milched Cows.

The beſt Way of making ſalt Butter freſh to great Profit. In the cheap Time of the Year and when it can be properly done, pot your Butter, and keep it till freſh, you think, is at the deareſt; then, cut it out in thin Slices, and put ſome into a Barrel Churn, juſt at the Time when the Cream begins to turn for Butter; for, if you put it in before, the Butter will not come near ſo well, and when all is mixed and come, waſh it in fair Water.

When

When Butter is beſt made. *April* and *September* are reckoned the worſt Months to make Butter in, becauſe then the Seaſon is between Graſs and Hay. No good Butter, it is ſaid, can be made after the Leaf is off in the common Way of doing it; therefore obſerve the Way I have in my other Book wrote of making Butter without Churning. If Butter is made of Clover or other artificial Graſs, it is apt to be rowy or ſtraky; yet with good Management this may be prevented.

To make Butter to pot or barrel. Stir your Milk in a Pail or Tub while it is warm from the Cow, and do it ſeveral Times in half an Hour; then put it into your Leaden or Wood Stands or Pans. Keep your Cream in an earthen glazed Pot, and, if you do not churn quickly, ſhift it into others every twelve Hours to keep it ſweet. As your Butter is churned, waſh it in two or three Waters, and ſalt it to your Conveniency. Beat all the Butter-milk clean out of it, for on this very much depends its Keeping ſweet, but never waſh it after Salting. If it is to be potted, keep it all Night in what in ſome Places is called a Wedge, and beat it next Morning again. Let your Layers in the Barrel or Pot be two Inches thick at leaſt, and ſtrew a little Salt between every one, and ſo on, till the Veſſel is full. Twelve Cows generally make a Firkin and a half a Week in Summer, and one in Winter. The Butter, that is made in the forward Part of the Summer, is not ſo good for Potting as the latter Sort. Where Cows feed only on the Graſs Baulks of plowed Grounds, and in Stubbles afterwards, they do not begin to pot Butter till the Corn is off, and leave off, when the Aſh and other Leaves drop.—Thus, in my Months of *May*, *June*, and this Month, I have wrote a larger Account of making Butter and Cheeſe, than all other Authors have, if what

what they have wrote on this Head was put together, and how well, I leave to my Reader's Judgment.

CHAP. XIV.

Of DUNGHIL-FOWLS *and their* EGGS.

A Farmer's Wife's Way to preſerve her Eggs. In the Months of *February*, *March*, *April*, and all the Summer Months, when Hens lay their Eggs in great Plenty, they may be preſerved and kept ſound ſeveral Ways againſt a dear Time, for which Purpoſe a Farmer's Wife took this Method: Thoſe Eggs eſpecially that were laid in the latter Part of the Summer, ſhe placed on the Bottom of old Corn-ſieves, and kept them in a dry warm Part of her Houſe, turning them once a Week, which kept them from being rotten till almoſt *Chriſtmas*, when Eggs became ſo ſcarce by frofty Seaſons, that they ſold for three and four a Groat.

The Higlers Way of preſerving Eggs ſound. It often happens that Higglers cannot ſell their Eggs at a preſent Market to their Mind. In this Caſe, as they generally keep them in Hampers, they turn the Hamper Topſy-turvy once a Week, and they will keep the Eggs from Rotting ſeveral Weeks.

Dr. Godfrey's *Way of keeping Eggs ſound a Year or two.* If Eggs are placed at the Bottom of a running Water or Rivulet, they will keep ſound above two Years. It has been proved, that after they have thus lain two Years, and then been put under a Hen, they have produced Chicks.

His

His second Way. Eggs, being also covered with a prover Varnish, will be good a Year afterwards, and, being laid under a Hen, have likewise produced Chicks.

Transporting Eggs. In any of the Summer Months, the Eggs of several Water and Land Wild-fowls may be collected, packed up with Bran, and sent to a great Distance. But for this Purpose I knew a Gentleman in *Staffordshire*, that made Use of Oatmeal instead of Bran, as being a much cheaper Commodity there, than where it was to be sent to, for by how much the Eggs are kept from the Air, the sounder they will prove for propagating their Species in other Places. The Beginning of this Month set your Hens, Ducks, and other Fowls with their usual Number of Eggs, that they may bring up their Young by the Help of your Home-stubbles, or with Corn that is scattered by Inning of Grain; and this do in this Month at fartheſt, for in next Hens commonly begin their Moulting, and then if they sit, their Chicks commonly die. But for many other Matters relating to both Game and Dunghil-cocks and Hens, I intend to give a serviceable Account of in a proper Month.

CHAP. XV.

Of BEES.

THE Improvement of Bees. This is a chief Month for the last Swarm of Bees to provide and get their Honey and Wax for Winter; and such Lovers of the red Blossom of St. *Foyne* are these Insects, that they will suck out their Juice, until they drop down dead. Therefore where

where Bees are kept neareſt to that, the Bloſſoms of Clover, Field-beans, and Flowers, or to thoſe of Fruit-trees, to the Gollins of Sollars, Haſel, Aſps, *&c.* there, I ſay, they have the greateſt Opportunity of making Wax, and laying up a great deal of Honey in a little Time. But the Make of the King-bee renders him unfit for gathering Honey, from whence appears an Emblem of Monarchy, for the common Bee gets all the Honey and Wax, and the Drones are their Servants to nurſe their Young. Their Art is to be extolled for making their Cells hexagonal, and ſo mathematically exact, that the Bottom of each Cell, on one Side, hath its Foundation upon the Lines of the three Cells, on the other Side, meeting all in one Angle right in the Middle of the oppoſite Bottom, by which their Strength and Beauty are much augmented. They alſo foreſee Winter and Storms, laying up Honey againſt one, and coming Home half freighted to prevent the other; beſides which ſome repair their decayed Hives, others carry out their Dead; ſome carry out the Filth, others keep Guard, placing themſelves in five or ſix Files, eight or ten deep, upon the Floor of the Hive, ſo that all the Bees paſs between them; others again ſerve for Bridges and Ladders for ſome of the reſt to paſs on and ſuch like; and when attacked or otherways, they will follow their Enemy with great Fury a great Way. Bees breed according to their Strength and Numbers; the more they are, the more they heat, and are thereby incited to breed, ſwarm, and fly the ſooner. For Bees breed all the Summer till Honey-gathering is paſt, but ſeldom ſwarm after *June*, and therefore in that Month I have given a large Account of it. If a Swarm happens to fly in *July*, they will not have Time enough to gather a ſufficient Quantity of Honey againſt

Winter; but they may be permitted to do what they can, till about the Middle of *Auguſt*, and then they muſt be killed, for taking out their Honey, for even *Midſummer* Swarming is reckoned very latterly, and in Danger of ſtanding out the cold Seaſon. A Stock of Bees will laſt two or three Years good and no longer; for afterwards they will candy, and the Moths will take them. If you have a Mind to keep a Stock of Bees on that which does not ſwarm, you may drive them in Swarming-time, as I have hinted in laſt Month, by turning the Hive's Bottom upwards, and put a dreſſed Hive over it, and they will all go up into the new one; ſo you will have their Honey, and let them labour for more. In the Winter 1738, many Swarms died by being ſtarved to Death, becauſe the preceding Summer was ſo wet and cold, that the Bees could not work enough to ſupply their annual Want. The Winter alſo of 1739, and the Spring following, were the coldeſt known in the Memory of Man, even ſo long cold, that many Hives of Bees all periſhed by it; ſo that Honey ſold the next Seaſon for a Quart. A Neighbour of mine gave a conſiderable Quantity of Honey among a few Hives; and yet could not preſerve the Bees alive. But they recovered their uſual Numbers afterwards; for in *February* 1741, at *Gaddeſden*, Virgin Honey was ſold in common for fourteen Pence a Quart.

How a poor Woman loſt a Swarm of Bees. — A poor Woman having had a Swarm of Bees, that flew into a little Hole between the Ceiling of a neighbouring Gentleman's Out-houſe; the Woman became his Petitioner to let her get her Bees, and ſhe would pay for all Damage that might happen by it; but this was refuſed her, and ſo was the leaſt Share of the Honey the Year following,

ing, when it was taken out, though he was not Lord of the Manor.

CHAP. XVI.

Of Breeding TAME PHEASANTS.

THE good and bad Properties of the Game.— One chief Reaſon why the Game ought to be hunted, ſhot, or otherways taken by Gentlemen, more than any others, is, becauſe it is a noble, healthful, martial Exerciſe; which by frequent Uſe, improves their Knowledge, and inures their Bodies to ſuch a Champain, delightful Fatigue, as ſerves for an Introduction, to raiſe in them an Inclination for the Acts of War. Thus, in a great Degree, is bred a brave Genius for Atchievements in the Defence of their Country. On the contrary, it is not fit, that Tradeſmen, Labourers, or Servants ſhould hunt, ſhoot, or otherways deſtroy the Game, becauſe by this, many have neglected their lawful Callings, got into ill Company, and contracted ſuch a Habit of Idleneſs, the Mother of all Vices, as inclines them afterwards to commit Robberies, which end too frequently in a ſhameful Death; but more of this by and by.

The preſent State of Pheaſants, and other Game.— Within theſe forty Years laſt paſt, wild Pheaſants were ſo numerous, that it was diverting to the vary Road Traveller, to hear them crow, and ſee them fly; but, ſince the Art of Shooting Flying, has become familiar, this noble Bird, in particular, has ſuffered the moſt of all others; becauſe its tame Nature, ſhort Flights, and valuable Body, encourage its Enemies to deſtroy it with the greater Eagerneſs: Hence it was, that the Le-

giſlature made a very penal Act in the Reign of Queen *Anne*, for their Preſervation, and for Protecting and Rewarding Game-keepers. But alas! their good Intent has been often inverted by many ill Perſons, for what by Poachers, and ſome avaricious Deputation Men, this excellent Fowl is become ſo rare, that now there is hardly one to be ſeen in the Woods of *Hertfordſhire* and *Buckinghamſhire*, where formerly they were in prodigious Plenty. Not long ſince, a Pheaſant was diſcovered among ſome low Shrub Trees, on a Common, about thirty Miles from *London*, upon which, an Information was immediately given to the Lord of the Manor's Game-keeper, who forthwith raiſed his Poſſe of Gunners and Spaniels for killing it, with as much Eagerneſs as if it had been a Wolf; and having ſhot it, the Action ſerved our Hero a long Time over a Pot, for recounting his Skill and Magnanimity: Whereas, had this, and other ſuch Birds, been protected with as much Diligence as it was deſtroy'd, conſequently there had been a fine Increaſe in ſo delicate a Shelter. Towards remedying the great Scarcity of this Fowl, and once more to revive the Number of wild Pheaſants, a worthy publick ſpirited Gentleman lately attempted to increaſe their Breed in *Hertfordſhire*, both in his new Park, and in the adjacent Woods aud Fields, by turning a large Parcel abroad; and it was believed his Endeavours would have proved Succeſsful, had not ſome Fire-men taken the Advantage of their ſtruggling out of their Verge, which made this well-beloved Perſon erect a Pheaſantry in his Park, to ſupply their Loſs, by confining ſome in a ſquare Place Night and Day, in Summer and Winter, that was covered over with Net-work; but even this did not fully anſwer, becauſe they did not know the moſt natural cheap Management of them.

Of encouraging and diſcouraging the Preſervation of the Game. But what is moſt to be relented, this charming Bird affords little Proſpect of propagating its Species in its original wild State, while Game-keepers are indulged with the conſtant Reward of one Shilling, for killing a Pheaſant, or Partridge, where no yearly Wages is allowed beſides: Or where it is annually given, and Sixpence is paid them on the Delivery of each Bird. Indeed, I cannot ſay, but that if a leſſer Price was allowed for each Bird, and a greater given for every Pheaſant and Partridge that can be proved to be in the Manor at Paring-time, in my humble Opinion it would be to a much better Purpoſe; and the more, if there was an Encouragement ſtipulated, that every Farmer who rents a Hundred a Year, or Yeoman that has not leſs than thirty Pounds a Year in Land of his own, ſhould have Protection and Liberty allowed him, to keep and come in for a ſmall Share of the Game, he is generally the ſole Maintainer of, and Sufferer by; then he, who has the beſt Opportunity of all others, would be ſure to uſe his Endeavours, to prevent Poachers and Vermin's deſtroying them; and in particular, the many unlucky Boys, who rejoice when they find a Neſt of their Eggs to quaſh with their Feet, or to blow them for a ſtringy Diverſion. Beſides which, it is the Thought of many judicious Perſons, that if all Higlers, Poulterers, and others, were obliged, under a ſevere Penalty, not to receive in Money, or Value, for a ſingle Pheaſant, Partridge, or Hare, more than one Shilling, it would not be worth any looſe Fellow's While to attend, and riſque the Catching of them. However, as this is only Diſcourſe, and not Fact at preſent; or whether theſe Propoſals of mine may be enacted into a Law, is uncertain; I ſhall, for ſupplying in ſome Degree, this lamentable D

fect, endeavour to give a moſt natural Account of breeding tame Pheaſants, in a very numerous and cheap Manner; the very beſt wild Fowl this Kingdom affords.

The Art of breeding tame Pheaſants, as it is now practiſed by three ſeveral Farmers, who are ſaid to pay their Rents by this very Means. This has been ſo great a Secret in Times paſt, that none practiſed it out of Rooms, or covered Places, which being a very chargeable, troubleſome, and unſucceſsful Way, it diſcouraged many from undertaking it: One of this Sort is to be ſeen in a new Park, made with Boards and Net-work, in which theſe Birds are very unnaturally confined all the Year, and it ſeems rather a Cage, than a Place of free Reſidence: While in another they are kept in the open Air, in ſuch great Order, that, at a Whiſtle, they ſwiftly run to their ſtated Meals, and, being pinioned, are ſuffered to rove at Pleaſure, under the Security of Trees, Shrubs, and Brakes, all the Day long, to preſerve them from their arch Enemy, the Hawk, and at Night, they are in the greateſt Safety, in an incloſed covered Place, where they go duly and voluntarily to Rooſt, and the Entrance afterwards ſtopped with a Fall-board, ſo that no Pole-cat, Weazle, Kane, Rats, nor Cat, can in the leaſt moleſt them. But as few have Parks, and many have other Places of Conveniency for Breeding this excellent Fowl, both in Towns and Country, I ſhall be very particular in my Directions for bringing ſuch an Undertaking to Perfection. *Firſt*, the Soil ſhould be of a dry Nature, conſiſting either of ſandy Loam, Chalk, Gravel, or ſome ſuch Sort, about twelve, or twenty Yards long, and ſix, or more, broad, fenced in on all Sides, with either a Wall, Pale, Reed, live or dead Hedge; for theſe Fowls covet no more Room than this, when one Pheaſant Cock, and ſeven Hens, are confined

in

in it. But a Clay, wet Soil, and a northern Situation and Aſpect, are no Ways agreeable to their Natures. Now for their Delight, Safety, and peaceable Feeding, part of this Plot of Ground may be made into a Sort of Kitchen Garden, wherein may be ſown, Beans, Carrots, Potatoes, Onions, Lettuce, Turneps. *&c.* The two laſt of which are greatly beloved by them, and all will grow without much Damage, if Care is taken to preſerve them with Buſhes laid over the Beds in their infant Growth. At one End of this Incloſure, are to be built two Apartments, that muſt be conveniently made; one for laying Eggs, and the other for Roofting, whoſe Dimenſions muſt be eſtimated, according to the Judgment of the Owner or Carpenter; who is here to obſerve, that there muſt be no croſs Sticks made Uſe of for their pearching on, leſt if any Thing ſhould diſturb them in the Night, they may not be bruiſed by their Fall or Fluttering; therefore the Pheaſants are to be allowed only Wheat-ſtraw on the Ground. One Man, indeed, was ſo indiſcreet, as to put two Pheaſant Cocks in ſuch a Place, to a Number of Hens in Proportion; but the Conſequence was, that the one killed the other, this Spring, 1740, whereby the Owner ſuſtained a conſiderable Loſs. Thus by having a proper Place, a right Number, and with good Management, the old Pheaſants may be kept in Health, live many Years, and lay their Eggs in Safety. But if you would keep a greater Number than one Cock, and ſeven Hen Pheaſants, you muſt have one, or more, ſuch incloſed Places, of theſe Dimenſions and Conveniencies, and that near your Dwelling-houſe. Thus I have wrote of the open Incloſure, or Place of keeping Pheaſants all the Year, for laying their Loiters of Eggs, preparatory to their being hatch'd and bred under Dunghil Hens, which is as follows.

Of

Of their Eggs and Hatching.— The Pheaſant Hen lays in *March*, *April*, *May*, and *June*. Their Eggs are every Day to be taken away, which generally amount to more than forty or fifty in a Seaſon, from each Hen Pheaſant: Theſe are all to be ſet under Dunghil Hens, ſo that the Hen Pheaſant has nothing to do with Sitting and Hatching throughout the Year. For this Reaſon, ſome value a good Hen at a great Rate, who though ſhe be the Dunghil Sort, or half Dunghil, or half a Game Breed, yet ſhe will fight a Kite or Hawk very furiouſly, in Defence of her Pheaſant Chicks. And when one of theſe is not broody of our own, the moſt profitable Way is to ſearch the Neighbourhood, and buy any you can get that is fit to ſet, though you pay the dearer for it; then ſet her with thirteen, fifteen, or ſeventeen Pheaſant Eggs, juſt as you do in the common Way; and, if ſhe is a good Hen, and her Eggs all ſound, it is very likely ſhe will bring them all to Perfection. But there is another Way practiſed by all the three Farmers, and that is,

How to breed a large mungrel Pheaſant.— To do this in a nice Manner, is to get a Pullet, or maiden Dunghil Hen, that never was trod by any Game or Dunghil Cock. Of this Sort you may keep one Cock Pheaſant, in Company with ſix or ſeven ſuch Hens, in a reſerved Place, as I have before deſcribed, and he will tread them, as he does his own Species; by which Means their Eggs will produce a large, hardy, beautiful, delicate fleſhed Fowl. And after a Hen has ſat and hatched this Brood, ſhe may ſerve to ſit on and hatch intire Pheaſant Eggs, or breed her own Sort; for a right Pheaſant-keeper will not breed this mungrel Bird twice by the ſame Dunghil Hen, though it may be done more than once, becauſe then it is thought to degenerate and baſtardiſe the Breed too much

much. Here alſo I muſt obſerve an Objection that I have heard made by Opponents, who alledge, That by ſuch a Mixture of Species, the Breed is made worſe than the true Pheaſant; which if granted in the Affirmative, yet it muſt be trivial, when it is conſidered, that Variety and Fancy are often preferred by Perſons of Ability: And then, what is it to the Breeder, if he can ſell this mungrel Fowl at a handſome Price, as is frequently done. Some are of Opinion, that the ſmall *Bantum* Hen is moſt proper for this Buſineſs, becauſe her light Body prevents the Breaking of the Eggs. Others, that the Turkey is the moſt proper, becauſe her large Body will cover the moſt Eggs, and bring up the Chickens like her own, as being by Nature neareſt to the Pheaſant. But as both have their Extreams, I ſhall forbear enlarging, and only ſay, that the common Dunghil Hen is made Uſe of by theſe experienced Men, as the beſt of all others for this Work, on account of her being like the Hen-Pheaſant, both in Bulk of Body, and Capacity of bringing up its young Poults. But, by the Way, take this Obſervation with you, that this croſs Strain will never breed again, any more than the Mule, that proceeds from an Aſs and a Mare. Thus the Dunghil Hen may be employed to ſit on Pheaſant Eggs from *March* to all *June*, but afterwards it will be to little Purpoſe. The Pheaſant Hen ſits on Eggs three Weeks, like the Dunghil-Hen.

To feed and bring up young Pheaſants.—When the Pheaſants are hatched, both the Hen and Chicks muſt be put into a wooden Hutch, or Contrivance, four Feet long, thirteen Inches wide, and thirteen deep; at one End of which, the Dunghil Hen muſt be confined all the Day, with Meat by her, and Liberty for the young ones to go out and in at Pleaſure, by three ſmall upright Rack-Staves,

four Inches aſunder, ſo that the Hen has but juſt Room enough in a covered Place to feed and ſhelter her young ones. All the other Part muſt be open with a Net over the Top, or none if they be watched. Now this long Sort of Hutch, or Box, that has folding Lids fixed to that Part where the Hen is ſhut up, to cover her, and her young ones under her, when it rains, is to be brought out every Morning very early, and put in a Field near a Hedge, and cloſe to Wheat, Barley, Graſs, *&c.* that the Pheaſant-poults may ſip in the Dew off the green Blades, inſtead of other Drink, and in this Manner left out 'till the Evening for the ſame Purpoſe; at laſt the Hen may have a little Water given her alone, for if Water in a Pan was given them, they would be apt to drink ſo freely, as to bring on a Scouring. But if you have not this Conveniency, you may give them new Milk in a ſhallow Thing, that is never to remain, 'till it ſours, and this for the firſt Week. Next ſhould be Milk and Water, equally mixed; after this, Water altogether; and for their firſt Food, it muſt be large Emmet-Eggs, or what we call, Black-Horſe Piſſum Eggs, which to come by, our heaſant Farmer rides ſometimes ten Miles an End, and then he takes up Banks and all in Sacks that afterwards is ſifted through a coarſe Cloth, which ſo intangles the Legs of the Ants, that they cannot run away ſo faſt, but you may eaſily catch and kill them; elſe, if they are given alive to the Chicks, they will be apt to ſting them, and make them refuſe their Meat. Or do this; put Earth and Emmets together into a Barrel, half or three Parts full, and then by burning in the ſame one or two large Brimſtone Rags at the Bung-hole, ſtopping it a little, to confine the Smoak, you may kill, or weaken them ſo, that they may be eaſily parted from their Eggs, and eaſily deſtroyed. But the firſt

Way

Way is now in actual Uſe, and only practiſed by theſe Farmers. And it is theſe whitiſh Eggs, that the Young muſt be firſt fed with, after they are ſeparated from moſt of their Earth and Emmets, which they keep in a Pitcher, and ſcatter now and then out of the Hand, over the Bottom of the Hutch or Box, and about it, on the Ground, once in about half an Hour, or more, while they are very young. Some feed them for the firſt three or four Days with the red Emmet's ſmaller Eggs, without killing the Emmets. Or you may make a Paſte of Barley Meal, with an Egg, and its Shell, in ſuch a Manner, that you may rub it into little Pellets, like the great Emmet's Eggs, which muſt be always freſh made, as often as you uſe it. This is to be given them as an alternate Food, beſides the Emmet Eggs, for only the firſt Week, to nouriſh and create them a Stomach. Next Week, make up the Paſte, with Barley-flour and Milk, with only the Egg-ſhell beat ſmall, and not the Egg. At a Fortnight's End, you may put them under a Hamper, covered like a Coop, with Holes in the ſame, on green Sward, for the Chickens to go in and out, or you may continue them in the former Box; and about the Box or Hamper there ſhould be a circular Fence made, about five Feet, or more wide, and eighteen Inches high, with Boards, Net-work, or Wires; but the moſt cheap, commodious Way the Farmer makes Uſe of, is this: He twiſts or weaves Haſle, or Willow-Twigs, Baſket-like, about upright Stakes, or Sticks till all is finiſhed, in order to confine the young ones from roving too far into Danger from the Hen, for about three Weeks Time, leſt they be intangled in the green Corn or Weeds, or killed by Vermin; then ſets the Box abroad for the Chicks to go in and out at Pleaſure, and when they are five or ſix Weeks old, they are often bought

for the Spit, at about Eighteen-pence a Piece, as a fine Regale for the beſt Quality. At this Age, take dry *French*, or Buck Wheat, and juſt break it in a Steel or Stone Malt-mill, and give it them, with now and then a few Emmets, or their Eggs, 'till they are fit to ſell at nine or ten Weeks old, to be kept for Breeders, at three Shillings a Piece, for now they will eat them, or whole Wheat, or Barley, or Oats. But all this Management muſt be under the Inſpection of a Perſon to watch the Chicks in the Field, moſt or all the Time. Therefore if the Farmer, or other, has a Girl, that can knit, plat for making Straw-hats, or make Lace, *&c.* Such a one, I ſay, may do this, and loſe no Time, as one of theſe is every Seaſon performed by one or more of theſe three Farmers Children, who keep and breed tame Pheaſants, and live within four or five Miles of each other, and enjoy the Conveniency of a Garden, Orchard, and little incloſed Fields, or Pieces of Ground, which they every Year ſow with ſeveral Sorts of Grain, and which is very beneficial for ſhifting the young Pheaſants from Time to Time from three Weeks old, who, in too cloſe a Place, are apt to ſtain it, and do Damage to themſelves and the Corn, and it is by theſe Means that Pheaſants are bred in the cheapeſt and beſt Manner poſſible, with great Succeſs; for theſe Creatures, at about five or ſix Weeks old by this Opportunity, will live from the Hen, and eat *French* Wheat, Barley, or Oats. But if they are kept longer with her, they will fare better. When the young Pheaſants are ready to fly, then they manage them, as I ſhall by and by ſhew, and confine them to the Incloſure.

To feed and manage old Pheaſants.— The ſuppoſed Difficulty and Charge of this Undertaking has been the very Reaſon, why many have neglected to attempt the Breeding of this noble Bird in a tame Way;

Way; wherefore, to undeceive ſuch, and that my Book may be one Means of cauſing this great Rarity to become a common and cheap Food, I ſhall here make it appear, that Pheaſants may be bred as cheap, or cheaper, than Dunghil-hens. The Pheaſant, after its Infancy, will not only eat Oats, Barley, Thetches, Peaſe, or *French* Wheat, but in the Winter-time, will feed on raw Turneps, both Roots and Leaves, Lettuce, Savoy, or Cole, or Rape-leaves, or ſeveral other culinary Greens; and in thoſe Places, where Beech-maſte, Acorns, Haws, *&c.* can be conveniently had, they will greedily eat them, as being their natural Food. In the Spring-time, they will feed on the Blades of green Wheat. In Autumn, they will live in Stubbles of Wheat, Barley, or other Grain, to their very great Improvement, under the Care of a Guard, who by the Cuſtom of a Whiſtle, may bring them together, and keep them in due Bounds. And between Whiles, in all Weather, nothing is more natural to them, nor more fattening, than whole *French* Wheat; for, after ſome Pheaſant-breeders had kept them ſeveral Years on other Meats, they have at laſt found, by joyful Experience, that this Grain has maintained them in ſuch Fleſh and Heart, as enabled them to withſtand the ſevereſt Weather in perfect Health, cauſed them to lay their Eggs early in great Numbers, endeared them to their confined Place, and vaſtly contributed to the Enlargement of their Bodies, in a little Time; ſo that nothing has been found ſo cheap and compleat a Food, as *French* Wheat throughout the Year. If a little other Sort is given now and then, by Way of Variety, it will create them the better Stomach, which is much more convenient and cheap, than that directed by a publick Receipt, *viz.* — Make a Paſte with Pollard, Milk, and Dunghil-hens Eggs, and give it the Pheaſants, as their common Food, to make them

them lay well.—As theſe Birds are kept wholly to lay Eggs, the Charge of watching them is, by this incloſed Place, avoided; and the Trouble for the young Pheaſants will be more than compenſated by the ſuperior Price the young ones will yield above the Dunghil Sort. However, ſome may object, That unleſs a Perſon is qualified, he cannot keep theſe Birds. But this is frivolous, for it was never known that any moleſted the Breed of tame Pheaſants, becauſe it is doing the Country a conſiderable Service, elſe the Breed may be loſt. Indeed, where the Breed of Partridges has been carried on in the ſame Way as this of Pheaſants, it has provoked ſome Lords of Manors to ſeize them, becauſe theſe Men have been guilty of taking the Eggs of wild Partridges out of their Neſts, and ſetting them at Home; but ſuch Male-practice is in no Danger by breeding and keeping tame Pheaſants.

To prevent the Flight of Pheaſants. — To pinion their Wing is certainly the ſureſt Way of all others to prevent their Eſcape, according to the following Operation, *viz.*— In the Month of *Auguſt*, or better in *September*, when the young Pheaſants are got ſtrong, pull the Feathers clear off the out-ſide Joint of one Wing, and tie a Packthread String very hard round the ſame, a little below the Joint; then cut off the Pinion with a ſharp Knife, and if it does not bleed in about an Hour, it may do well; but, if it ſhould, then ſear it with a red hot Tobacco-pipe. But our Pheaſant-farmers make no more to do than clip one Wing; for they rely more upon their Naturaliſation to the Place, than by cutting a Wing, as appears by thoſe, who have no other Fence for keeping them in, than ſmall Sticks, faſtened together, in an upright Poſture, by two Pairs of croſs double Withs, about two Feet above one another, which keep the ſix-foot high Sticks in their fixed Place; for ſo tame are theſe Country-bred Pheaſants

Pheaſants, that, though at three Weeks End they are at Liberty to go to, and from the Hen, in the open Field, among green Corn, yet they will return on the Hen's Call, or at a Whiſtle, if they are accuſtomed to it; and it is by a Whiſtle old Pheaſants are called to their Meat, in the Park beforementioned.

An Account of breeding and feeding Pheaſants, by another Farmer.— This Man confines the old Pheaſants all the Year in an open Place near the Houſe, incloſed only with oaken Laths ſix Feet high, with Conveniency for their Laying Eggs, and Rooſting. Their Eggs he puts under Dunghil Hens, to hatch and bring up the young Pheaſants, firſt with Emmets Eggs, and now and then Crums of Bread, or a boiled Egg chopped ſmall, and made into a Paſte, with Flour; then ſome ſmall offal Wheat, and ſo on with other Food. He has a ſingle Apartment for each Brood to go into at Night to rooſt, and in the Day-time they are put into a Box, or Hamper, with Holes in its Sides, that is placed in the round, five Foot wide Fence, 'till they are big enough to keep Company with the Hen in the open Field, while ſhe is tied by one Leg, and afterwards, while ſhe and her young ones go looſe into the Wheat, or other Grain, great Part of the Summer, under the Inſpection of the Daughter, or other Guard, to keep off the Hawk and other Enemies. One old Pheaſant will lay two or three Litters of Eggs in a Year, and, when the Dunghil Hen ſits on them, ſhe is allowed Meat and Water to ſtand by her all the Time. He ſows Wheat, Barley, and Oats for them, in little Parcels, to eat green, as it grows up; alſo Turneps he ſows for Winter-food, and cuts only the Feathers of one Wing at Times, for that this Sort of home-bred Birds is not like thoſe bought out of Chambers, or Places in Towns. At *Chriſtmas*, he ſells his laſt bred Pheaſants

ſants, for five, ſix, or ſeven Shillings a-piece. At this Man's Houſe, I ſaw a beautiful, large, Cock, mongrel Pheaſant, with white Feathers mixed among the red and other coloured ones, which was bred between a true Cock Pheaſant and a Dunghil white Hen. The ſame Man gives his Pheaſants only raw Turneps, throwed into their confined Walks, with a Change of Oats, Barley, and offal Wheat; and, by thus feeding them, they grow hardy, and lay many excellent Eggs, that, like the *Guinea* Hen's, are good for many Uſes; but, where a Perſon has a Conveniency, nothing can be raiſed better for them than a Broom, Fuzen, Box, Beech, or Yew-hedge, by ſowing the Seed in Drills in *February* or *March*; or in Nurſeries for rearing Sets, that are afterwards to be tranſplanted for this Purpoſe. Millet-ſeed, which is a ſmall, yellow Sort, would prove an excellent, delightful, healthy Food for the young Pheaſants, if ſown in a fine, light Earth, in *March*, or *April*. About two or three Quarts ſow an Acre to be harrowed in: It is ſold at many Grocers and Seed-ſhops in *London*: But, for the firſt Week, give the Chicks ſmall, red, live Emmets, or Ants, and their Eggs, for theſe are too ſmall to ſting and hurt; and then kill and give large black Emmets, and their Eggs, with Paſte between Whiles from Hatching-time; and, when they are ſet Abroad, take them every Night before Sun-ſet.

Of breeding Pheaſants, by a Nobleman's Servant. This Nobleman has been at the Charge of five or ſix ſquare Partitions, for breeding and keeping in true Pheaſants, *Guinea* Hens, flying Turkies, *Muſcovy* Ducks, white, or mottled Peacocks, and mongrel Pheaſants, which ſtrike their Beholders with a ſurpriſing Pleaſure, particularly when they ſee the charming white Pheaſants, and the half-bred larger Sort; all which are confined in their ſeveral Apartments

ments, and are moſt commodiouſly kept, and increaſed to great Numbers every Year. Each Partician contains near half an Acre of Ground; ſome whereof are incloſed by Paling, others with Haſle-rods, woved or worked together in a very neat, ſtrong Manner, ſtanding near eight Feet high, and which open one out into another. Some are covered all over with Net-work fixed to croſs Bottoms of Oaks, whoſe Ends reſt on erected Poſts, and whoſe Maſhes are one Inch broad, and an Inch and a half long, that, after theſe packthread Nets are made, are dipped into Pitch that has been heated with Greaſe, or Tar mixed with it, 'till it was brought into a thin Conſiſtence for the Purpoſe, and then ſuch Netting will laſt many Years. Others of the Partitions are intirely open to the Air, and the Ground plowed, or dug every Seaſon, for ſowing in it Turneps, Clover, Wheat, Barley, Oats, or other Greenware for the Pheaſants, and the reſt, to feed on. But I told their Keeper, or Breeder, that there was another Vegetable, which he ought to ſow every Year, and which would prove of prodigious Service to his Poultry in the ſnowy Seaſon, when no others could be come at, and that is, Rapes, or Coleworts, that he was quite ignorant of: But of this great Inconveniency I ſhall write further in a Chapter *of keeping Geeſe*, &c. However, notwithſtanding theſe Partitions, I thought there was the leaſt Proviſion made for the Hen-pheaſant, that ever I ſaw; for here they let them lie out all Summer and Winter expoſed to the Weather, becauſe they think them hardier Birds than Dunghil Hens; for they provide no Place, or Cover for them, even in ſnowy Seaſons, except a few Boards, placed in a Corner of the incloſed Partition, like an open Pent-houſe, ſo that they are obliged to lay their Eggs in a ſhallow Hollow in the Earth, which the Pheaſant ſcratches; and, when a Neſt-egg is left in the ſame, they gra-

dually lay to it, and are as often taken away to put under Dunghil Hens, or better the Game-ſort, who are more fit to protect their Pheaſant Chicks againſt their Enemies; and here it is that they obſerve to put no more than thirteen Eggs under her, becauſe the Hen ſhould the better cover all of them. Their Meat, as firſt Food, is a boiled Egg chopped very ſmall, which they give for a Day or two; then Emmets Eggs for two Months, with *French* Wheat from five Weeks old between Whiles; and then, after the two Months End, *French* Wheat, Oats, Barley, common Wheat, and the green Sort beſides; and thus the ſame all the reſt of the Year: But, if they have too much of the green Ware, it will bring the Sniggets on them, which to them, is like the Glanders to a Horſe. Here alſo they obſerve to take the Pheaſant Chicks from the Hen, as ſoon as ſhe begins to lay, or elſe ſhe will peck and kill them. ——— Now to theſe my Accounts of breeding Pheaſants in the cheapeſt Manner poſſible, to the great Profit of their Owners, and to the great Conveniency and Pleaſure of the Nation in general, I ſhall here tranſcribe Mr. *Bradley*'s Account of breeding Pheaſants, as it is publiſhed in his Monthly Book for *April* (Page 25.) as follows, *viz.*

Mr. Bradley's *Account of breeding tame Pheaſants.* The breeding of Pheaſants is generally thought to be ſo difficult and expenſive, that few will undertake it; which, perhaps, may be, becauſe the common Method preſcribed for breeding this Sort of Fowl is ſo unnatural to them, that we ſeldom have more than one fourth Part of the young ones come to Good; and yet, I find, it is practiſed in ſome famous Pheaſantries, where the Expence amounts to much more, than the Value of the Fowls, that are produced: But in this, as well as other Things, we find, that the more we ſwerve from Nature's Rules, we are more diſtant from Truth and Profit; and

too

too frequently we find Men involved in Error, when they prefer Art to Nature. It is obſerved by Men of Judgment, that the moſt uſeful Diſcoveries were in Nature, before they were diſcovered; and that no Art is juſt, whoſe Foundation is not Natural. One Inſtance of this may be pretty well explained by what I have obſerved in the breeding of Pheaſants about my own Houſe: I bought a good Number, with a Receipt for their Management according to Art, *viz.* That they ſhould be fed with Paſte, made with Pollard, Milk, and a common Hen's Egg, which, I was told, would make them lay plentifully. Now, whether by this Means, or according to the Nature of Fowls, which have their Eggs conſtantly taken away, they were prompted to lay more Eggs than natural, I know not; but every Hen brought me thirty Eggs at leaſt, ſo that I had always Eggs enough from every Pheaſant to ſet under two Hens of the common Poultry; however, with all the Care I could take, I had not a fourth Part of the Eggs come to the Perfection I deſired, 'till one of my Hen Pheaſants by Accident got Abroad, and ſtole her Neſt, which ſhe kept undiſcovered, 'till ſhe brought out fifteen young ones, that I ſuffered to run with her two or three Days, without Controul. But I was ignorant enough then to imagine I could contribute to their Welfare by retrenching their Liberty, and giving them richer Diet than they naturally fed upon, beſides my preſerving them from Vermin: I therefore took the Hen and her Young at Rooſting-time, and put them in a Place of Shelter; but the Morning following I found my Miſtake, the Hen had deſtroyed every one, by wounding them in the Head with her Beak. From hence I learned how neceſſary it is to treat all created Bodies in the Way moſt natural to them; and I have found ſince by Experience, that where pinion'd Pheaſants have had due Liberty al-

lowed them, and not more than one Cock to ſeven Hens, they have brought their Young to Perfection for a trifling Expence. —— Alſo in his firſt Volume, at Page 392, he ſays, That we have Inſtances enough of Pheaſants, though they have the Liberty of the Wing, that are ſo tame, that they will every Night return to their own Home; and, as often as they are called by their Keepers, they will come to them. They will breed without any Trouble in ſuch Places, but the young ones ſhould be caught at a Month old, and fed; they will then live upon Corn alone, and may be eaſily tamed, and diſciplined. Nor are Patridges more difficult in their Management; I have taken them at two, or three Months old, and made them ſo tame and familiar, that they have followed me every where, as as well about the Houſe, as without Doors; and ſome of them would frequently fly upon the Table, when I have been at Dinner, regardleſs of all Fear, *&c.*

CHAP. XVII.

Of PEACOCKS *and* HENS.

Breeding Peacocks and Peahens.—One Cock will ſerve ſix or ſeven Hens, but, if you have only one Cock, and one or two Hens, they will go on well enough; and, that this large-bodied Fowl may lay her Eggs early in a good Number, her Meat, eſpecially near Laying-ſeaſon, ſhould be *French* Wheat, as the cheapeſt and moſt nouriſhing Sort of all others. Others ſay, toaſted Beans, given her once in three or four Days, or a Paſte made of Milk and Bean-flour, or Milk, Barley-meal, and an Egg, kneaded together into a Dough, or Paſte, will have the ſame Effect; and, as this Bird is very

apt

apt to drop her Eggs, ſhe ſhould have a low Perch, and a great deal of Straw under, if ſhe is confined in a Houſe. In *April* they commonly lay their Litter of Eggs, and then are for ſitting. They will lay from four to eight Eggs for one Litter, and very ſeldom lay more in one Year, unleſs the firſt are taken from her, or that ſhe is diſturbed and forſakes them. If you will have a Dunghil Hen hatch them, there ſhould be five Eggs of the Peahen's, and four of her own to make her keep Neſt, which, if ſhe is of the large Sort, ſhe will cover. Then at a Week's End, take her own away, and put four others in their Room, becauſe the Peahen ſits a Month, and the Dunghil Hen three Weeks, therefore this is to make out the Time; but a Dunghil Hen ſeldom brings the Pea-chicks up to that Perfection, as the natural Parent does. While the common Hen ſits, the Eggs ſhould be turned, which may be better done, if they were firſt marked: However, this need not be obſerved, when the Peahen ſits herſelf, which ſhe will do on five, or ſeven of her own Eggs. And when hatched, houſe them for a Day or two (if ſhe ſat under Cover) and then, if fair Weather, bring them Abroad, and put the old one under a large Coop, or Pen, covered over with ſome light Cloth to keep off all driſling Wets, and the Air, if too cold; becauſe the young ones are very tender, therefore no Rain ſhould come on them the firſt three Weeks, or till the upright Head-feathers appears. Firſt feed them with Cheeſe-curds mixed with Barley-meal, or other Meal mixed with Water, or chop Leaks ſmall, and mix with Curds; or mix fine Pollard with freſh Pot-liquor, or Water, and, between Whiles, give them Crumbs of dry Bread, or Bread boiled in Milk, when it is cold; then give them *French* Wheat juſt broke, as I have directed for the Pheaſants. If a Dunghil Hen go with the Pea-chicks, you may, about

about a Month old, tie her by a Leg in the Field, and, by Degrees, give her more Room, 'till the young ones become ſtronger, and ſhe march at her full Liberty with them: In which Caſe, a common Hen, that will ſtand Battle with a Hawk, is the propereſt for this Buſineſs. But a Perſon who keeps theſe Fowl too near me, on a high Clay Situation, always lets them range out at Pleaſure; and, every Year, the Peahen chuſes her own Neſt abroad, in a Hedge ſecret from the Cock, for he ſhould never come nigh her, in all the Time of her Sitting, leſt he tread her, and ſpoil her Eggs: Nor ſhould he come at the Chicks, 'till they have got their Head-feathers, leſt he courſe and kill them. But, when the Hen has thus her full Liberty abroad, and rooſts with her Chicks in a Hedge, ſhe has moſt Succeſs, for no Art can come up to Nature. Once a Dog ſpoiled her Sitting the firſt Litter; but the ſame Peahen laid another that Seaſon, and ſat hard in a Hedge, 'till ſhe hatched, and brought up the young ones with great Safety; but it ſeldom happens, that ſhe lays two Litters in one Summer, and ſits twice. If you uſe theſe Birds to a particular Call, or Whiſtle, they will in a little Time anſwer to it, by voluntarily coming to your Feeding-place.

The good Properties of the Peacock and Hen. Theſe have their good and bad Properties, like many other Fowls. To write of their better Part: I muſt ſay, they are moſt beautiful, large-bodied, dainty Birds, graceful to the Place they are kept at, and delightful, when ſeen in all their pompous, ſpreading Gaiety, of fine-coloured Feathers. They are hardy Creatures, as appears by their rooſting on Trees; and Ridges of Houſes and Barns, in the moſt froſty Seaſons; and are ſuch diligent Providers, that they will live on as little Meat given them, as Dunghil Hens. The Body of a young Peacock, or Hen, yields the whiteſt and daintieſt of Fleſh, which

which will reſiſt Corruption longer than all others, by keeping (after it is dreſſed) for ſome Time in the hotteſt Seaſon; is of a very eaſy Digeſtion, and not ſubject to the common Notion of being blood-raw the Day after Roaſting, as ſome maintain, for I have eat them longer than that Time without perceiving any ſuch Sign; but, indeed, theſe were neither old ones, nor ſuch as were confined to a ſmall Yard. Their Eggs were alſo of an excellent Kind; one of them will go as far as three of the Dunghil Hen's in a Pudding, and exceed all in Pleaſantneſs of Taſte. Theſe Birds kill Adders, Snakes, Slow-worms, and other venomous Creatures; are reckoned Prognoſticators of wet Weather, by making the Neighbourhood hear their noiſy Note at a great Diſtance. They live thirty or forty Years, and, when about half a Year old, have been, and are generally ſold for Half-a-guinea a-piece. The Peacock, about ſix or ſeven Years old, is ready to be poſſeſſed of his full Growth of Feathers.

The bad Properties of the Peacock and Hen. This pleaſant Bird, as I ſaid, is very ſerviceable, in ſome Places, for deſtroying Serpents aad venemous Inſects, for which Reaſon I knew a Gentleman keep them. But, notwithſtanding this good Property, he was forced to part with them in a little Time, on Account of their flying over his Walls into his Gardens, and ſpoiling his Fruits; and, if they were deprived of their Liberty, it would not then anſwer his End, becauſe they would be hindered, roving in Queſt of theſe Creatures, of getting their Living in a cheap Way, and perching on Trees, Houſes, and Barns, which, in the Country, are moſt natural to them. Nor is this Fowl fit to live near Orchards, or Corn-fields, by Reaſon of his heavy Body, and great Search and Tread after Food; for, to ſatisfy his Hunger, he will fly and travel to a conſiderable Diſtance, peck Fruit off Trees,

Trees, and devour Wheat, Barley, Beans, Peaſe in the Ear and Pod in the Fields; and at or near Home, he is a great Spoiler of Thatch of Barns and Houſes, by walking on the Sides and Ridges of them.

Of the mottled, or whitiſh Peacock and Hen. In the Park before-mentioned, there are kept a conſiderable Number of theſe fine Fowls, that have a few greeniſh-coloured Spots, and browniſh Feathers mixed here and there, with the greateſt Part white, which renders them very beautiful Birds to the Eye; and, ſome think, more dainty for the Spit. In one of the open Apartments they are moſt of them confined all the Year, and fed on Turneps, Clover, and other Green-ware, that are here ſowed for them, and where their Chicks are much better ſecured from Kites and other Vermin, than if they had their full Liberty to roam Abroad; and, by cutting one Wing, they are prevented from flying away, though ſome of them now and then are ſuffered to mount on the Pales, and ſit above the reſt; but, as they are here naturaliſed, they are ready to come to their ſtated Meals on hearing the Whiſtle, and thus they go on breeding and thriving in a very expeditious Manner, by only the Help of *French* Wheat, or other Corn, and green Food beſides, which almoſt always keeps ſome in a Readineſs to anſwer any ſudden Want of ſuch delicate Fare. ——— I ſhould in the next Place, give an Account of breeding *Guinea* Hens, *&c.* but theſe in other Months. ——— *N. B.* A full grown Peacock is commonly ſold for Half-a-guinea, but a Hen for leſs; when they are to be fatted, they cram them with Pellets made with Barley-meal.

CHAP.

CHAP. XVIII.

Of PEAT *and* PEAT-ASHES.

AN *Account of the Nature of Peat, as it relates to the great Improvement of Huſbandry.* As I have endeavoured how my former Writings may aſſiſt the Farmer, ſo that he may chearfully and rightly compleat his Deſigns and Labours to pay his Landlord, Taxes, maintain his Family, and be of the greateſt Service to the Nation in general, I would ſtill be inſtrumental in promoting the moſt uſeful and neceſſary Ways and Methods, that may anſwer theſe great Ends; and of all others, next to the Plough, there are none will do this better, than a proper Manure timely applied. Of ſuch an one I ſhall here give ſuch a Character, as, I hope, will convince the moſt ignorant Ruſtic of its beneficial Qualities to Ground, Corn, Graſſes, Trees, *&c.* and this is Peat burnt to Aſhes: A Subject that has hitherto eſcaped the effectual Knowledge of all Authors, though it is one of the moſt material (if not the chiefeſt) Article in Huſbandry, as I ſhall by and by, I hope, make appear. Peat is a Thing made Uſe of, in many Countries, as Fuel to brew, bake, dreſs Victuals with, and perform other neceſſary Occaſions in Families. But one, if not the chiefeſt Part of its Effects, conſiſts in doing Service to the Farmer, a Thing totally neglected in moſt Parts, by the Ignorance of Perſons who burn it as Fuel, but not for its fertiliſing Aſhes. The Highways and Dunghils are the two main Funds that many ſearch after, as thinking theſe afford Dreſſing enough to anſwer all the Wants of their Farms: It is on theſe Accounts that I have been aſtoniſhed, that ſome few Countries ſhould enjoy ſo great a Benefit as theſe Peat-aſhes, and that innumerable Parts

elſewhere lie neglected, where this Peat may be found and made Uſe of, or elſe where it is dug and burnt, without any Regard to its Aſhes: That ſome People ſhall get Eſtates by Farming, while others run out, and are ruined for want of employing Peat, that lies even near them, and yet will not endeavour after obtaining this moſt valuable Manure, though it is one of the cheapeſt, moſt convenient and neceſſary Sorts, that can be had near their Farm or Garden; which puts me in Mind of a Gentleman's Expreſſion, when he called his Tenants *Pack-horſes*, becauſe they would not willingly try any Thing new, though he was at Part of the Charge himſelf, to improve the Farms they rented of him. This, I think, ſhould excite every Farmer to uſe his Endeavours to get this excellent Dreſſing, where it may be conveniently had; but, as he may be in the Dark, with Reſpect to this Matter, for want of farther Intelligence, I ſhall proceed and ſay, that Peat is, by ſome People, thought to be as old as the Deluge, for Reaſons I am going to aſſign. Now that Perſons may form an Idea where this golden Peat-mine is to be found, I ſhall firſt obſerve, That in moſt Places where the Ground lies flat between Hills, there Peat may be commonly found. But this is with Exception, for in *Northamptonſhire*, and particularly near *Northampton*, there is a deep River, and a flat contiguous Ground, which yields no Peat; which I impute to the Want of Trees; for as there are few grow at this Time in theſe Parts, I ſuppoſe there were few, or none, there in Times paſt, and therefore this Part of the Country is without Peat; for I am of Opinion, that Peat is bred from Inundations and Trees, becauſe Trees are found in moſt Peat-grounds. About *Newbury* in *Berkſhire*, I think I ſaw the greateſt Peat-ground in *England*, I mean, where they burn the moſt Peat in Heaps Abroad, purely for making Aſhes

to

to dreſs Land with; and here it is ſurpriſing to ſee ſuch Numbers of large Trees taken out of the Ground, that lay buried eight or ten Feet deep, ſome retaining their natural Subſtance, and others decayed, and as rotten as Touchwood. Oak, Deal, and other Timber-trees of a prodigious Size have been found ſo ſound, as to be made Uſe of in building Houſes. Stags Horns and many other Things have been likewiſe diſcovered ten Feet deep. How theſe ſhould be here has employed the Thoughts of many, whoſe Opinions are various: Some conjecture, that at the Deluge, when the Waters covered the Face of the whole Earth, and all Nature ſuffered, not only the animal, but the vegetable Part alſo had its Share, when every high Hill under Heaven was covered with fifteen Cubits Depth of Water; and by the Waters prevailing and continuing on the Earth one hundred and fifty Days, probably (ſay they) it might make ſuch Devaſtation among Trees, that they might be torn up, and, by the Rapidity of them, be brought to theſe Vale, or Flat-lands, where, as the Waters abated, the Trees were left, and, by the Weight of their Bodies, ſunk to their Center; for it is obſerved, that, the bigger the Body, the lower the Tree deſcended. Others are of Opinion, that ſome great Floods and Storms of Winds of later Date may be the Cauſe of this wonderful Accident. But certain it is, that many Trees of a large Bulk, unexpoſed to either Wind or Water, lie here intirely waſted to Rottenneſs, and are as ſoft as Butter. In the next Place I ſhall proceed to give an Account of the Nature of this Peat-earth. As I obſerved before, Peat is commonly found in flat Grounds, but, as to its Depth of lying, it is uncertain. In ſome Places, the Bed, or *Stratum* of Peat, is found ſix Feet under the Surface of the Earth, and, to come at it, they are ſometimes obliged to dig through one Foot of top black

Mould, or Loam, and, after that, through a white Maum three Feet thick. Sometimes a Gravel lies betwixt the Surface and the Peat; but to know the true Peat it is very eaſy, by its black Colour, its hollow light Body, and its being full of moſſy Fibres, or thready Roots, and not having any other Earth intermixed with it; not but that there are divers Kinds of Peat of various Colours, but the beſt is the jet-black Sort, which generally lies in Bottoms next to Rivers. In the Fen-countries of *Cambridgeſhire*, where the Waters lie on the Peat-grounds great Part of the Year, I am of Opinion they are, in this Manner, the Cauſe that Peat is very light and hollow, and by this the Vertue of their Peat and its Aſhes is much leſſened, and its Aſhes fewer in Quantity. On the contrary, where Peat lies wettiſh, but much drier, it has generally a more compact and cloſer Body; and the heavier ſuch Peat is, the ſtronger and heavier the Aſhes are, and the more Service they will do, wherever employed.

An Account of Newbury *Peat-aſhes.* Near this Place, and near the River, that runs from this Town to *Reading* into the *Thames*, Peat has been dug, for theſe forty Years laſt paſt, out of a mooriſh Ground, and taken up by a long, narrow, wooden Scoop, that brings it out in the Shape of a Brick, but twice as long; which is laid in the Summer-time on the Ground to dry and ſell for 8 *s.* a Waggon-load, as Fuel to burn in Grates; but for making it into Aſhes, to dreſs and manure Ground with, they burn it in Heaps, each Heap containing many Loads; and, when one is ſet on Fire, they lay on more Peat, as the Fire extends outwards, and increaſe it to make the greater Quantity of Aſhes, and keep in the Smoak as well as they can; but at length there appears a great Smoak, like that of a Brewhouſe Chimney. In this Poſture many great Heaps, that are burning and ſmoaking in the open

Air,

Air, are expoſed to the View of Travellers. The Invention of burning Peat into Aſhes had its firſt Beginning near forty Years ago in this Part, but was ſoon brought into Diſreputation, by the Farmers ignorantly laying too much at a Time of them on their Land, for the Exceſs of Quantity ſerved to burn up and deſtroy the Crop of Grain, or Graſs, inſtead of fertiliſing it. Afterwards they laid only ten Buſhels of the Aſhes on one Acre, Peat-meaſure, which is equal to fifteen of *Wincheſter*; and this on one Acre of Turneps, or Peaſe, as ſoon as they appear; and on Clover, St. Foyne, and other Graſſes it did Wonders: But, for Wheat, many refuſe to uſe it in its Infancy, ſaying it will cauſe it to grow Winter-proud; but in the Spring-time, if it is ſown over it, and a wet Time ſucceeds, it will anſwer the Purpoſe. Others refuſe to ſow the Aſhes on Barley, becauſe, as it cannot be done 'till *March*, if a dry Time follows, it will help to burn it up; for theſe Peat-aſhes are thought to have three Times the Quantity of Sulphur in them, that Coal-aſhes have, as is proved by ſtirring them when they are of a Fire, for then they will ſparkle, jump, and ſmell almoſt like Brimſtone. When I was at *Briſtol*, in the Year 1737, the People told me, that they were ignorant of the Virtue of Soot, as it related to the manuring and fertiliſing Land, inſomuch that they threw it away on common Street Dung-hills. Theſe Peat-aſhes were formerly ſerved in the ſame Manner, 'till a Farmer, whoſe Genius aſpired after further Improvements in Huſbandry, than were in common Practice, ventured to ſow theſe Aſhes on his Ground; and finding a ſurpriſing Effect of their Goodneſs, continued their Uſe for ſeveral Years, before their Value was publickly known, to his great Profit, as the following Letter mentions. And now, as the Maſk is taken off this Way, and in another ſmart Contrivance that I could name, I hope

hope this rich Manure will become the commoneſt powdered Sort that is uſed; for contributing thereto, I ſhall further write as follows, being the Copy of a Letter ſent me from *Hempſtead* in *Hertfordſhire*, and wrote by the Owner of the Peat-grounds, lying near *King's-Langley*, in the ſame County.

An Account of Langley Peat-aſhes.

Hempſtead, May 29th, 1740.

SIR,

'ACcording to your Deſire I have ſent you a 'ſhort Account of my Aſhes agreeable to 'your Queſtion. Firſt, as to the Quantity of 'Buſhels to be ſown on an Acre; I adviſe ten of 'my Peat-buſhels, which are about fifteen eight 'Gallon Buſhels. They are good for Wheat. I 'ſold a Perſon this Year ſome, and he has declared, he never ſaw ſo good Proſpect of a Crop 'this Year. I ſold ſome to Mr. *Clark* of *Gaddeſden-Row*. This is the ſecond Crop, and he 'told me about a Fortnight ago, he can diſtinguiſh every Handful of Aſhes that was ſown 'laſt Year. It would be endleſs to recite all I 'have ſold. Mr. ——, of *Corner-Hall*, has ſowed 'it upon Clover, and ſays, he believes nothing 'ſweetens the Ground ſo much. Wherever this 'is ſown for Cattle, they are ſo fond, that they 'eat the Graſs, without Diſtinction to Clover, to 'his Wonder. They do as much Good to the enſuing Crop, as they do to the firſt. They are accounted the beſt Dreſſing in the World. I heard 'Mr. *Tomſon*, a Farmer at *Newbury*, declare, he 'once ſowed fourteen Buſhels of theſe Aſhes upon one Acre of Peaſe, and they made them run 'ſix Feet, but were all laid, and had no Corn. 'He has for twenty Years tried ſeveral Quantities 'of theſe Aſhes, and now ſays, he would ſooner

'give

'give eight Shillings for eight Buſhel, than have 'twenty for nothing; meaning, that, if a dry 'Summer comes after ſowing ſo many on one 'Acre, they will burn up the Crop, though it be 'even Peaſe; and if a Feeding, or wet Time fol-'lows, then they will make the Corn too rank. 'After a few Years, that the Ground is in good 'Heart, which nothing enriches more than theſe 'Aſhes; a leſſer Quantity will do then, ten Buſhels 'on an Acre. I can bring twenty ſubſtantial Far-'mers, that will juſtify the Service they have been 'to their Land. Before theſe Aſhes were ſown 'at *Newbury*, they had poor cold Land; but, 'by uſing this Manure, the Land, that was 'let for five Shillings an Acre, is now let for 'twenty. They are now uſed but very little in '*Berkſhire* for any Thing but Peaſe, Vetches, '*St. Foyne*, Clover, or Trefoil, for they count 'that Land, ſown with theſe Graſſes and Aſhes, 'is ſo enriched by them, that the next ſucceſſive 'Crop of Wheat or Barley needs no Aſſiſtance be-'ſide, for that the Earth is in Heart enough to 'produce a great Burthen. The Sward Ground, 'or that which bears natural Graſs, has yielded 'a third Part more ſince theſe Aſhes have been 'made uſe of in the ſame, than it did before. 'I ſell them (where Attendance is given from '*April* to *September*) every Day in the Meadow 'where I burn them, at eight Pence a Buſhel. 'Ten Buſhels dreſs an Acre, which come to no 'more than ſix Shillings and eight Pence, one 'Waggon will carry ſixty Buſhels. Such a 'ſmall Quantity to dreſs ſo much Ground, makes 'the Thing very cheap. Perſons that have large 'Farms may dreſs the fartheſt Land from their 'Houſe with Eaſe at any Time, and then they 'have an Opportunity of laying on their Dung 'nearer Home, which will ſave a great deal of Carting,

'Carting, and other Damage. They are fetched 'from *Newbury*, twenty Miles every Week in 'the Seaſon, which is in *January* and *February*; 'for fear there ſhould be a dry Time, and for 'want of Wet to waſh them in, they will do 'but little Service, and therefore People chuſe to 'ſow them early at that Time. They have made 'uſe of them here about thirty Years, and find 'nothing improves Land ſo much. When they 'were at firſt ſown with the Shovel, as they do 'Wood or Coal-aſhes, theſe Peat-aſhes were of 'no Uſe, but did more Harm than Good. They 'were firſt ſown at a Place called *Thatcham* for 'ſome Years before they were made Publick, and 'then the Farmers made a very great Advantage, 'inſomuch that one Man declared (after the 'Thing was known) that he got a Thouſand 'Pounds by ſowing them upon his Farm. We 'burn them in Heaps of two Hundred Buſhels 'each, or a Thouſand, it is all one.

'I ſold my Peat-aſhes, where the People have 'ſowed half a Field with Soot, and the other 'half with Peat-aſhes; and no Perſon could di-'ſtinguiſh the Odds, though the firſt came to fif-'teen Shillings, the other ſix Shillings and eight 'Pence an Acre Charge. A better Crop I never 'ſaw.

'I ſold laſt Year Aſhes to a Man who ſow-'ed about four Lands within about two Poles 'off the End of a Shot. Where he ſowed, you 'might diſtinguiſh a Mile Diſtance the Odds. 'He had not Aſhes enough to carry on the Sow-'ing to the End of the Shot, and where he left off 'Sowing, there was as much Difference, as if 'there had been two Sorts of Graſs. And Dr. '——— told me, Where theſe Aſhes were ſown 'in his Graſs Ground, notwithſtanding the Graſs 'was very Rank, the Horſes eat all that before 'they would touch the other.

'I beg

'I beg you will excuſe my imperfect Spelling 'and Inditing, for I have Perſons talking to me 'all the While I write, it being Market-day. 'You may depend on the Account of theſe Par-'ticulars, as Matter of Fact.'

Yours,

AMOS LEA.

An Account of other Peat-aſhes. This Peat-ground, near *Langley* and *Hempſtead*, has not been broken up for this Purpoſe above four Years; occaſioned firſt by the Owner's taking a Survey of that at *Newbury*, and the Information he received there of the great Service and Value their Peat-aſhes were of: On this he purchaſed three or four Meadows lying near a River's Side, which produce the Peat I have been a deſcribing, and ſeems to be as good as that of *Newbury*. Here Mr. *Lea* propoſes to furniſh any Houſe with Peat to burn it as Fuel all the Year in Grates for fifty Shillings, provided they take Care of the Aſhes, by burning no Wood or other Fuel with it, and let him have them all neat; for if theſe are well ſaved and ſifted, they will be of a whitiſh Colour, and very fine, and in Goodneſs, near, if not quite as good, as thoſe burnt in Heaps in the Meadow. Another Sort of Peat is called *Ling-peat*, ſuch as the common People pare off the Surface of dry Commons, as that is near *Leighton* in *Bedfordſhire*, and many other Places in *England*; but this produces very poor Aſhes, becauſe the Ling or Peat comes off a poor Soil, and therefore is thrown to the Street Dunghil; yet at a Place about two or three Miles Diſtance from that, in a low Meadow, not near a River, there a Peat is dug called *Bog-peat*, and is like that at *Newbury* and

Langley, lies deep in the Ground as they do, and of the ſame Colour and Goodneſs. Alſo about two Years ago, I am told, a certain Gentleman in *Bedfordſhire*, being informed of the Service of the *Langley* Peat-aſhes, got Hands from thence, and fell to work; and having diſcovered an excellent Sort in his own Eſtate, refuſed to ſell any, becauſe he will keep all he makes, for his own and his Tenants Uſes.

Another Account of Peat-aſhes, from Weſt-Hyde. Here they ſay, that *Newbury* Aſhes are ſo full of Sulphur, that they dare not ſow them on Wheat in the Quantity they are ſowed on Peaſe, or artificial Graſs, leſt it cauſe 'em to grow too Rank: But of late they have ventured to ſow them in a leſſer Quantity, as ſeven Buſhels inſtead of ten, on the Wheat-crop. Alſo of late, they ſay, Peat is burnt at *Newbury* in a Clamp, like a Brick-kiln near *London*; wherein, like that, they leave Places for the Fire to go by Flues from one Part to another, and ſecure all the Outſides of it very cloſe, to hinder any Fire coming out. *Newbury* Aſhes were made a Trial of, at *Taplow*, between *Rickmanſworth* and *Uxbridge*, thus: —— Nothing was ſown on one Part of the Field, the other Part was ſown with Smith's Aſhes, and a third with theſe Peat-aſhes: The Smith's Coal-aſhes did Good, but the Peat-aſhes exceeded the Smith's as much as the Smith's exceeded that Part which had no Dreſſing on it.

Of burning, and making Peat into Aſhes near Langley. Here they do not burn Peat in the Manner of a Clamp, or Brick-kiln, but only in Heaps of one or two Hundred, or more Loads in a Heap; and this Work is carried on, almoſt all the Summer long, in an open Meadow, juſt by where the Peat is dug. It is dug, or ſcooped out, in narrow Pieces, near two Feet long, in Shape like a Brick, and carried directly to the Heap intended to be burnt; where

with

with a few Faggots, a Heap is ſoon ſet on Fire, that muſt be kept lined, or covered without-ſide, according to Diſcretion, with more Peat, ſo that the Fire muſt be neither ſuffocated, nor have too much Vent; for ſo prompt is Peat to take Fire, as being a ſpungy, fat Earth, that a great Heap need not be long attended, and therefore one Man can manage the Fires of ſeveral at one and the ſame Time, by Reaſon they will gradually burn and calcine, almoſt of themſelves, into a reddiſh, coarſe Sand, like heavy Aſhes: Accordingly ſome Heaps, that have been little regarded after taking Fire, have burnt little or more, for two Months together. And why theſe Aſhes are of a reddiſh Colour, and more coarſe, than thoſe made from Peat burnt in Kitchen-grates, is, becauſe here the Fire is confined under Cover, and the Smoak very much prevented evaporating, which in Kitchen-grates have both a greater Liberty of a more expeditious and free Conſumption, and therefore the Aſhes are burnt whiter; for it is the Nature of Smoak to tincture all Things of a very brown, or reddiſh Colour, that in a moderate Degree are confined to it; and black, if they lie very near, and long by it. Then after Peat is burnt, and calcined into theſe Aſhes in the Meadow, ſome are laid under Cover, to be kept from the Waſh of Rains; others are laid up in the open Meadow, in great, long Heaps like a Hog's Back, which, by their cloſe Lying, and Ridge-Shape, will remain very ſecure from Damage all the Winter, and in *January*, or *February* next, they are brought under Cover to be ſifted, and ſold to the Farmers and Gardeners; for, as they are burnt in large Heaps, there will be great Quantities of hard Bits and Pieces of burnt Earth, that muſt be firſt ſeparated. Likewiſe thoſe, that are made by Peat burnt in Grates, muſt be alſo ſifted, for, the

finer the Aſhes are made, the further they will go, and do the more Good.

Of the ill Properties of Peat. It is certain, that if theſe Aſhes, after Sowing, are attended by a long Succeſſion of dry Weather, they muſt not be expected to do much Good the firſt Year; nay, ſometimes they will do more Harm than Good, by aſſiſting dry, hot Weather, to ſcorch up the Corn, or Graſs. But then this is no more, than what Coal-ſoot will do, that we give one Shilling for every ſingle *Wincheſter* Buſhel, delivered at *Gaddeſden*, twenty-eight Miles from *London:* But, if Showers fall in Time, then their profitable Effects may be ſoon ſeen in Perfection. Peat alſo, eſpecially when it is burnt in Grates, not thoroughly dried, will yield an offenſive Smell to the Victuals that are dreſſed by it, and to the Company that ſit by its Fire; becauſe this light, ſpungy, ſubterraneous, black Earth being full of moſſy Fibres, or Roots, caſts out ſuch a Brimſtone-ſmell, as makes it diſagreeable to all within its Reach.

Of the great Advantages, that may ariſe to Great-Britain, Ireland, *and to our Plantations in* America, *by theſe my Accounts of Peat-aſhes.* As I am, to the beſt of my Knowledge, the firſt Author that has publickly, amply, and plainly diſcovered where Peat may be found, with its Management of burning into Aſhes, and its invaluable Effects to Vegetables and Animals, I have the Pleaſure to hope, that Thouſands of Acres will be found out, and employed to this Purpoſe: Whereby many Tenants, who live at this Time, where hardly any other Manure, or Dreſſing, is to be had, than their Dung, or Fold, may, by theſe my Deſcriptions, obtain ſuch Plenty of Peat-aſhes, as will enable them to make their poor Land rich; pay their Rents and Taxes punctually; their Landlords, and others, in Time,

enjoy

enjoy ſuch an Improvement of their Graſs, Corn, and wooded Eſtates, as to increaſe their Fortunes; the Poor ſupplied with Bread, Fleſh, and Drink in the cheapeſt Manner; and, in ſhort, that *Great-Britain*, *Ireland*, and our Plantations in *America*, may become the beſt Granary, or Storehouſe, in the World, for ſupplying not only ourſelves, but foreign Nations with Proviſions, to the Multiplying of Trade, and to our immenſe Profit in general.

CHAP. XIX.

Of WOAD.

THE Nature and Management of Woad. This Vegetable is ſown of late in many Places in *February*, or *March*, for the Dyer's Uſe, to a conſiderable Profit; but the Undertaking is chargeable, becauſe of the Mill, and other Utenſils that muſt be had for curing the Woad. I ſaw this grow in Plenty, between *Bath* and *Briſtol*. Half a Buſhel of naked Seed, or two or three Buſhels in the Hull, ſows an Acre. New, rich, ſound, warm Land, juſt broke up, is beſt for this Purpoſe, that lies on ſome Declivity; for this Plant draws much Nouriſhment, to ſupport its often Cutting or Twiſting of its Head-leaves, which are broad, and grow near the Ground; and this Sort of Gathering may be performed four or five Times in one Summer, that muſt be immediately carried to the Mill to be ground each Time; which, when done, is, with its Juice, made into Balls, and dried on the Fleaks in the Air; thus each Crop, after Grinding, is kept ſeparate, 'till they are afterwards mixed according to Art, and ground over again into a dry Powder, which muſt be laid, Malt like, on a Floor, and well watered, worked

worked and turned often, for ſeveral Weeks, 'till it putrefies, and ſtinks much, and, 'till by a great Deal of Labour and Time, it becomes of a bright, black Colour, and then it is fit for Sale; but the forward Crops are always better than the latter, which generally make a Difference in their Price. Of itſelf, it dyes Woollen of an Olive Colour; but the main Uſe of it is, to faſten in other Colours, and chiefly the grey, blue, and the dark Sorts. On new broken up Sward Ground, on only one Plowing, this Seed may be harrowed in at the Spring-time, and then it will ſometimes laſt three or four Years together, for this Woad ſo impoveriſhes Ground, that they do not ſow the ſame Seed in it again, for near twenty Years; but, the next Year after it is worn out, they give the Land ſome Winter Plowings, and commonly ſow it with Barley. The Seed-Stalks will grow two or three Feet high, and, when ripe, are cut with Reap-hooks, thraſhed out in the Barn, and cleaned as other Corn. Some that have let out their Sward Land for three Pounds a Year an Acre, to be plowed up for ſowing Woad-ſeed, on it, forbear Letting out more, when they have found how greatly this Vegetable draws the Earth.

CHAP. XX.

Of HOGS.

A *Sow and Pig ſold for Twelve Shillings and Six Pence.* In this Month, 1740, the long dry Seaſon had ſo burnt up the Graſs, that there was little left for Cattle, even in the richer Vales, by which Means many were forced to

ſell

ſell their Swine off for very little Money. On the eighth Day of this Month, 1740, at *Leighton-buzzard* Market, there was a gelt Sow with ten of her Pigs ſold for twelve Shillings and Six Pence, a Thing never known in the Memory of Man. And yet in the very next Winter and Spring they were as dear; for I verily believe, were the ſame Sow and Pigs to be ſold in *December* following, they would have fetched three Pounds at leaſt: So great a Turn have Markets in a little Time.

Killing Hogs in this Month. At *Froome* in *Somerſetſhire*, when I was there, on the third Day of this Month *July*, 1737, they were killing Hogs and burning them both for Pork and Bacon. They kill them in the Evening, and cut them out next Morning, when they put the Fleſh into a Brine that will bear an Egg for two Hours. Then they take out the Hog and ſalt him. If for Bacon, they firſt rub four Ounces of Salt-petre all over, then ſalt him with common Salt, then let the Flitches lie flat for three or four Weeks in a Cellar, till they hang them up for Drying. But for Pork, they keep the Pieces in Salt after Brining, and ſell it as it is wanted. And in this Manner they proceed all the Summer long.

Feeding Hogs in Clover. All this Month 1739, a Neighbour of mine drove his Hogs a Mile diſtant from his Houſe, every Day, into his Clover Field, under the conſtant Care of a Boy, who, about twelve of the Clock, had them to a Pond that lay a pretty Way off the Field, as having no Water there, on which with a Supper of Waſh and Grains they throve and grew a-pace.

The Benefit of Poppy to Sows. None would covet the Growth of this Weed, for enjoying it in

in this Manner; but, where it is a Gueſt, it concerns the Owner to make the beſt of a bad Market. Green Poppy, given to a Sow that has Pigs, will invite her to eat it greedily, and then it will breed a great Deal of Milk, and ſo it will when it is in its red Flower as it is in this Month; and if, enough could be conveniently got, the Sow would almoſt bring up her Litter of Pigs with it, it is ſo ſucculent a Plant.

CHAP. XXI.

Of HORSES.

Remedies made Uſe of by Farmers, and others, to cure Horſes of Worms. This Malady is ſo inherent to Horſes, that few eſcape being damaged by theſe Vermin. I have known a Horſe killed by them at three Years old, whoſe Body being opened, I think I ſaw near half a Peck of Botts, alive in it; ſo that even Youth nor Age exempts not this Animal from being in Danger of his Life from Worms and Botts. Now as Mercurius Dulcis, crude Mercury or Quickſilver, and other Preparations of Mercury, are certainly the moſt efficacious Remedy in the World for deſtroying theſe Reptiles by their Mixture in Purges, Balls, or otherways: Yet there is ſo much Danger in the Adminiſtration of them by unſkilful Hands, that many chuſe to go farther about for the more Safety. Accordingly I ſhall, here and hereafter, publiſh what I, and other Farmers practice to ſupply the ſame, and which will effectually anſwer this great End of preventing and deſtroying Worms and Botts, in the cheapeſt and ſafeſt Manner that is, *viz.*

Firſt,

Firſt Receipt. Mix a Quarter of a Pound of Honey with three Pints of Ale, and give it a Horſe out of a Horn at Night; faſt him till next Morning, and then cut green Box and Savin very ſmall with Sciſſars, but moſt of the laſt, and mix and give it with ſome Corn. This will kill Worms and Botts, if now and then given; for the Drink looſens theſe Vermin in the Horſe's Belly, and then they will greedily eat the Leaves to their Deſtruction. But do not miſtake one Vegetable and take another in its Room, leſt it has the fatal Effect of Yew.

Yew-tree Leaves kill a Horſe. This, even if it is cut ſmall and given to a Horſe, kills him, for it will not digeſt.

A ſecond Receipt. Take a Quart of Milk and ſweeten it well, then put a Spoonful of the Juice of Savin into it, and the Worms will feed on it, till they burſt.——This, by a *Suffolk* Farmer, is ſaid to be beyond Antimony or mercurial Balls. I have ſeveral other Receipts to communicate, when I have more Room.

CHAP. XXII.

Of the Uſefulneſs of the great ſpiky Roll *and* great Harrow.

OF working the ſpiky Roll. When laſt and this Month are very dry, it hinders ſeveral of the Afternoon Farmers from making their firſt Stirre, becauſe their Teams are not able in many Places to plow the Clays, hard Gravels, and other ſtony Grounds. And thoſe Lands, that have been plowed, may perhaps remain in ſuch hard Clots that it is very difficult to get them fine Time

enough to ſow with Turneps in the proper Seaſon. Now therefore, the Value of that excellent ſpiky Roll, which I publiſhed in *April*, may be eaſily known by the Want of it, to reduce ſuch rough Land, and, with the Help of the great Harrow after it, bring ſuch Earth at once into a tolerable Tilth. The Account of which Harrow take as follows, *viz.*

A Deſcription of the great Harrow and its Uſes. It is made with eight Aſhen Beams, of four Inches and a half ſquare, and ſeven Feet long, with Iron Tines in Proportion, about half as long again as the common Sort, to ſtand at the ſame Diſtance. To this two Horſes in ſome Places are faſtened a-breaſt, and one before, or as many as are neceſſary, for drawing this Harrow immediately after the Roll; or, after the ſpiky Roll has been over all the Ground, the ſame Horſes may be ſhut out to work this Harrow, that in ſuch hard Soils will do prodigious Service, being to ſome Land better than a ſorry Plowing. By this you will have ſuch an Advantage as will be near in Value to a Dunging on a rough Ground, for it is paſt Contradiction, that, when Earth is made fine and looſe, it is brought into a Condition of receiving and lodging the nitrous Dews, which an uncultivated Earth cannot enjoy, as may be plainly perceived by pouring Water on one and the other. And it is for this very Reaſon that ſome Farmers, by timely plowing their Ground, get better Crops with one Dreſſing, than others with two. Nay, I have known a better Crop got off ſuch well-plowed Ground with no Dreſſing, than a next Neighbour's ſame Soil returned, that had been badly plowed but well dreſſed.

The Character of a bad Huſbandman. Though, he is ſenſible that often Plowing is a Benefit to the Ground,

Ground, eſpecially if it be a ſtiff Land for ſowing it with Grain, yet he does not conſider that the Dews get down the fine looſe Earth lower than the Roots of the Corn, that again is turned up by the next Plowing, ſo that, by thus expoſing the ſeveral Parts of the Mould from Time to Time to the Dews, there may be collected ſuch a Fund of Sulphur and Nitre in the Pores and Orifices of the hollow made Earth, as will nouriſh the ſucceeding Crop to great Profit. I ſay, if he well weighed the Importance of this Management, he would plow his Ground betimes in little Furrows, that it may lie the longer in a fine hollow Body, to get more of this rich fertile Dreſſing, than thoſe who do not make Uſe of their valuable Seaſons, and more eſpecially in the laſt, and this Month, becauſe the Dews may be received in the greateſt Plenty; and more ſtill if the Weather (as commonly it is) be hot and dry, for then the Sun draws much out of the Earth, and in the Night it falls again in great Quantities. However the bad Huſbandman is not without his Chance, for it is ſaid he has a good Crop once in ſeven Years, as it happened in the wet Summer, 1735, when the continued Rains ſo favoured his poor rough tilthed Lands, as made his Grain grow a juſt Pace; when the Ground, that was well manured and plowed, returned rank Crops, that were early beat down and laid, ſo that the Kernel received but half Nouriſhment, and at Harveſt not half a full Crop. But he muſt be a moſt imprudent Huſbandman, indeed, that will be a bad one for ſix Years, to enjoy the uncertain Fruits of a good one the Seventh. However, if ſuch a one ſhould be under the Misfortune of a rough Tilth at this Time of the Year, the great Harrow either with, or without the ſpiky Roll, may do him conſider-

able Service. This great Advantage may be annually ſeen in the low Clay-grounds of *Middleſex*, where their Farmers ſeldom miſs a Year without uſing the great Harrow, that is drawn ſometimes by ſix or eight Horſes, to harrow down their three and four-bout clotty Lands, and for tearing out their grand Enemy the Twitch, or Couch-Graſs, which they afterwards lay in Heaps, and carefully burn in the ſame Field.

CHAP. XXIII.

Of brewing MALT-LIQUORS, *for Harveſt-Men.*

OUR Way of late Years in *Hertfordſhire*, is, inſtead of brewing only one Sort of Malt-Liquor for our Harveſt-Men a Month or two before the Time we want it: To brew a ſtrong Beer in *March*, and an Ale in *June*, or at furtheſt the very Beginning of this Month; and if the Beer is rightly brewed, the Virtue of the Hops will be duly meliorated and incorporated with it, by which our Men find a conſiderable Advantage; for thus the Drink will be improved in Strength, Taſte, and Clearneſs, give the greater Pleaſure to the Harveſt People by invigorating, and cheriſhing their Hearts, become more wholeſome, cauſe them to work chearfully, and quench their Drought much better, than if it was all a mild Ale; ſo that the Farmer ſtands the Chance of having more Work done with the greater Expedition, than when they can have no other, but a poor weak Drink, that has been oftentimes the very Occaſion that many have fallen ſick in a Time when they are moſt wanted. The Ale is alſo very

very neceſſary to temper the Beer by a proper Mixture of both, according to the Palate of the Drinkers; for by having a ſtrong ſtaliſh Beer, and a mild Ale, the Farmer is Maſter of a Variety, and better enabled to pleaſe a Sort of Men, that commonly will do more for a Pot of good Drink in Time, than double its Value in Money; but here is Room for an Objection or two: That, if Ale is brewed in *June* or *July*, it is hazardous brewing it ſo, as to obtain a ſound pleaſant Drink, becauſe of the exceſſive Heat of Weather and the Corruption of Water. To this I anſwer, That, if a Perſon underſtood the Way of Brewing as he ought to do, he has no Reaſon to fear any of this, for there are Ways to prevent all Damage on theſe Accounts. I ſhall add no more here, but refer my Reader to a Book intituled, *A Supplement to the three Parts of the* London *and Country Brewer*, wherein are ſhewn ſeveral Methods of brewing Beers and Ales in all Seaſons of the Year, and for reliſhing, fining, and preſerving the ſame.

CHAP. XXIV.

Of Miſcellaneous Matters in Huſbandry.

Cherries. In this Month, Cherries are for the moſt Part in their greateſt Perfection of Ripeneſs; particularly, the beſt black Sort, of all others, rightly named the Crown-Cherry, corruptly Kerroons, or *Belcher*'s Black, being a Cherry, that exceeds all others of this Colour, for its hard Fleſh, pleaſant Taſte, large Body, and plentiful Bearing on Standard-Trees, if planted in a right Soil

Soil and Place. For my Part, I have ventured to plant above a hundred of this very Sort of Trees, in my Meadows, on the Graſs-baulks of my plowed Fields, in my Wood, and in my Hedges, whereof many of them ſtand in Fields through which are Path-ways, very remote from my Houſe: And not only theſe, but likewiſe, in the ſame Manner, many of that famous red Cherry, the May-Duke and ſome White-Hearts, Black-Hearts, Bleeding-Hearts, Morello, *Orleance*, and *Flemiſh*, or *Kentiſh*, and Honey-Cherries, beſides the wild Sort of Black, in Hopes it will encourage others to do the like, that our Land may abound in Plenty with the beſt of Fruits, of which Number, I call moſt of theſe Cherries; but eſpecially the black Kerroon, for affording a charming Sight in the Field, yielding a delicious, cool, healthy Repaſt in the ſultry Seaſons, and for making a rich Wine: A Wine that is fit to appear at the beſt Table, and regale a Prince, if it is made after a Manner that I intend to publiſh, in one of my Treatiſes on *Cyder*, &c. now preparing for the Preſs. Not but that a large common black Cherry may do for this Purpoſe, but the Kerroon having a great Deal of Fleſh and Juice in it, a hard Body for enduring a long Carriage, and a pleaſant Taſte withal, it may pleaſe many beyond the wild Sort. About four Years ago I ſent, at twice, a Number of theſe Kerroon Cherry-trees into *Yorkſhire*, from whence I received a great Commendation of their Excellency, and am ready to ſupply any Perſons with them, or any other of the improved Sorts. Now take Care that your Gatherers do not break off the ſmall Twigs on which the Cherries grow. If they do, it will infallibly hinder the Trees bearing next Year, in a great Degree: And why I caution this, is, becauſe ſome of the unſkilful or careleſs Gatherers are apt to be guilty of this Damage, as I have

have formerly found it, to my great Prejudice, in our Parts of *Hertfordſhire*, if the Crop is tolerable good, we give Four-pence for every dozen Weight, but in *Kent*, they gather, by the Sieve, their *Flemiſh* red Cherries, off Trees that generally are as little again as our common wild Cherry-Trees. Now take Care to be up by Break of Day, and late at Night, or elſe the Jay, Crow, Rook, Magpye, Jack-Daw, and even the ſmaller Birds, will attack your ripe Cherries, and make ſuch Havock, that, if let alone, would ruin Hundreds of ſmall Crops. The Wind-frapping Engine, or the prepared Feathers, will now do great Service, if fixed in ſome of theſe Trees. This is a principal Month for budding Cherry-trees, the Operation is beſt performed in the Evening. I ſhould here give a very particular Account of the Manner of budding them, as I and my Boys do it; but I have not Room for this, nor other Matters relating to Cherries, in this Monthly Book.

Garden, or Broad-Beans, and Peaſe, &c. Theſe as they are ſowed, or ſet, by many Farmers, beſides myſelf, come under the Cognizance of my Pen. Now the Benefit of ſetting the *Windſor*, or Broad-beans, at ſeveral Times, may be enjoyed with Pleaſure and Profit, by their Owners being Maſters of young Beans, when thoſe, that were ſet all at once, are not; and ſometimes a latter Crop fetches as much Money as an early one. But how ſuperior ſweet and excellent thoſe Beans are, that were ſet in Virgin, or new broken-up Sward, or other Ground, few know, beſides thoſe that enjoy their delicious Eating. Indeed, the ſandy, chalky, and ſuch dry Soils produce the neareſt beſt to this; but Nothing comes up to Virgin Mould; therefore, to keep ſuch Earth near its priſtine State as long as poſſible, for this and other culinary green Ware, forbear Dreſſing it with coarſe

coarſe Dungs. Lime, or Oil-cake Powder, Horn-ſhavings, Leather-ſhavings, Hoofs, Malt-duſt and ſuch like, are moſt agreeable to anſwer this valuable End. It is practiſed by ſome, on gathering green Beans, to cut down their Stalks within a few Inches of the Ground, to get a latter Crop; but if this happens to ſucceed, the Stalks muſt be greenish, or elſe it would not do. The great Runcival Peaſe are likewiſe ſaid to do the ſame. Now, as ſoon as your Crop of Broad-beans are gathered, the ſame Ground may be plowed for harrowing in Turnep-ſeed, for I will ſuppoſe that ſuch is in a fine tilth Condition, which good Houghing, and a plentiful Crop, ſeldom, or never fails of cauſing. Or a Crop of Wheat, or Cole-ſeed, may be, on one or two Plowings, harrowed in, to great Advantage; becauſe, after ſuch a well huſbanded Crop, the leſs Dung, or Dreſſing, will ſerve the Ground. Or if ſuch Ground had Carrot-ſeed harrowed in, after the Beans or Peaſe were ſet or ſowed, then a profitable Return may be expected hereafter, as it is practiſed about *Godliman* in *Surry*, and many other Places, that afford ſuch Soils. Now water your Rows of latter ſown Peaſe and Beans, to bring them on the ſooner to a Ripeneſs and Largeneſs, in Caſe they are under a dry Seaſon; ſome will do it by a *Dutch* Squirt, others by a Barrel in a Wheel-Barrow, that has an Arm of Tin fixed in, with a Roſe-head, that the Water may run on their Roots, as it is drove between the Rows of drilled Beans or Peaſe; for by this the Hot-Spur nine-week Pea will be very much forwarded, eſpecially if they had the Aſſiſtance of Peat-aſhes, Oil-cake Powder, or other Dreſſings, laid to them at Setting or Sowing-time. In this Month, the pernicious Hail, or Hell-weed, that I here in particular take Notice of, for the capital Miſchief it is the ſole Cauſe oftentimes of, in wound-

wounding the Bean-ſtalks, to the Deſtruction of Thouſands of Acres; but moſt of all to thoſe ſown in the random Way as moſt are in *Ayleſbury* Vale, and many others; and as it runs along Bean-Crops, for above forty Poles together, in the Manner of a Bind or Claſper, I ſhall here give an Account of its ſurpriſing Effects. — A Perſon took a Piece of its Bind, or Twiſt, out from among the Horſe beans, that grew in the common Fields, and put the ſame among ſome of his broad Beans as they grew in his Garden; and it was not long before it ſo united itſelf to them, as to take a Running from Bean-ſtalk to Bean-ſtalk, as it had done before in the Place, it was taken from. This Trial was performed behind the *Nag's-head Inn* in *Iſlingboe, Bucks.* — This and the like Misfortunes by Weeds, *&c.* have brought on and encouraged the new Way of Drilling Horſe-beans, in common Fields, and Houghing them afterwards. But if they are not houghed, they are much better done ſo, than in the old promiſcuous Way, becauſe the Sheep have free Acceſs to feed, range, and break the Threads of this Hale-weed.

Flax. If your Flax is ripe in this Month, you may know it, by the Pod and Seed, or when it looks of a mature yellowiſh Colour, and the Pods or Boles are ready to crack and open, for then the Seed will be hardiſh, and of a light-brown Colour; but be ſure not to pull this, 'till its Seed is full ripe, for Flax, in particular, will ſuffer greatly by it, even to the Loſs of above half the Flax Crop; for it is ſaid to be then ſo weak, as to break in Dreſſing, and a great Deal of it become Tow, by which he loſes much of his Quantity of good Flax. Now then fall to Work, and let every Man with both Hands pull a Parcel up at a Time, which is to be tenderly laid on the Ground, with the Seed-heads towards the South; and ſo another Parcel

laid long-ways on that, and more, 'till a large Parcel is raiſed as thick as a good Wheat-ſheaf; but in ſo declining a Manner, that the Seed heads of one Parcel may lie a little ſhorter than the laſt, for the Sun's Rays to have the freer Acceſs to them. This, if the Weather is wettiſh; but if fair, then the Handfuls need only be laid and turned on the Ground now and then, for Drying, about a Fortnight; otherways, it may take up three Weeks, or more. When all is dried enough, and thoroughly made, it is to be tied up in Bundles, and carried. Others ſay, it is enough to pluck it, and tie it up in Handfuls, to be ſet in an almoſt upright Poſture, for ſome of the Handfuls to ſtand one againſt another, to be dried, till all is duly made for carrying into the Barn. Of Hemp in next Month: But there are many other Things that I could publiſh in this Month, if I had Encouragement to enlarge my Books.

CHAP. XXV.

Of Manures and Dreſſings of Turf, Weeds, Mud, Road-dirt, and other Sullidge, Lime, Soot, old Thatch, Wood, Pot, and Coal-aſhes, Suds, Oil-cake Powder, and Dungs.

TURF *and Weeds*, &c. If you have not done it in *May* and *June* (which is the beſt Time for this Work) do it the Beginning of this Month. If you have an Opportunity before Harveſt begins, cut or dig, fork or ſhovel up Graſs-turf, that grows near Hedges, or elſewhere; or where you have ſtocked up any Brow of Underwood: I ſay, mix ſuch Turf with Lime, and it will burn up all Graſs, Sedge, and ſmall Roots, and Weeds, and thus reduce

reduce all tough, ſour Turf, and clotty Earth, into a Fineneſs and Sweetneſs, againſt Wheat-ſeaſon in *October* next, provided you can give the Heap one or two Turnings in that Time. In the ſame Manner all Sullidge, and Mud of Highways, Ponds, and Ditches, ſhould be ſerved, either by mixing it with Lime, or ſmall Chalk alone, or with Lime and Dung together; or with Marle, Maum, Ore, or Sea-weed, Fern, Nettles, Seaſand, or other proper Ingredients, to make a fertile Compoſt.

Lime. In ſome Parts of *Eſſex*, as well as in *Surry*, *Kent*, and many other Places, they give two or three Plowings to an Oat-ſtubble, and then lay one Buſhel of Lime on every Rod of Ground, where, after a very few Days, it commonly ſlakes; then they plough ſhallow, and harrow in Wheat in Broad-Lands; and thus they ſay, that, with a little other Dreſſing afterwards, Lime mends Land for ſeven Years. In ſome Parts of *Surry*, when they lay a Buſhel of Lime in a Heap in the Field, it is their Way to throw a little Mould over it, that it may the more gradually and leiſurely ſlaken, and by this Means, it will ſwell to a great Degree; then they ſpread it over the Land with a Shovel, and plow and ſow Rye, Wheat, or other Grain. About *Godliman*, or *Godalmin* in *Surry*, they lime their ſandy Loams for Turneps, Rye, Barley, Wheat, Peaſe, *French* Wheat, *&c.* and let it lie ſometimes in a great Heap, near a Month in their Fields, before they throw it about, and plow it in. Others lay a Cart-load in one Heap, or very many in one Heap, to lie a Time, and ſlake by the Weather. A ſmall Rain ſhuts it, but a great Rain ſlakes it. Then, from a great Heap, they load it in little low Carts, and with a Shovel, a Man throws it over the Land, which they immediately plow or harrow in once in a Place, to

keep the Wind from blowing it away. This ſome do for altogether; others for the preſent; 'till they plow once more, and harrow in Rye, Wheat, Turnep-ſeed, *&c.* for if ſuch Manure of Lime is neglected being thrown over Ground, either in this, or next Month, or in *September* at fartheſt, and it be done ſo late as in *October*, and the Ground be wet, it is very apt to burn the Horſes Hoofs. On the thirteenth of *June*, I ſaw Lime lie over a Field in *Surry*, in one or two Buſhel Heaps, about a Pole aſunder, to be ſlaked, and ſpread, and plowed in, for harrowing Turnep-ſeed. Here, they ſay, Lime will do no Good to low, ſpringy, ſtiff Land; becauſe, as Lime is of a cold Nature after the Fire is out of it, it will help to chill the Grain, by its mixing with ſuch moiſt Ground: Therefore it does moſt Good in ſandy, or dry Loams. Here, a Farmer told me, he once knew powdered Lime ſown by the Hand out of a Seedcot, over Wheat; but that this Way was not practiſed in theſe Parts. A Quaker, that keeps a Lime-kiln, in *Buckinghamſhire*, tells me, that Stone-lime lain in a large Heap, under Cover, to ſlaken by Time, is ſtronger than that quenched all at once by Water.

Soot, &c. In my laſt Month, I have wrote on this Article, but ſhall here farther enlarge on the ſame. If the Harveſt is backward, thoſe Farmers who live within thirty Miles of *London*, and whoſe Land is proper for it, perhaps may have Time to ſend their Teams thither (as many do from our Parts) for this noble Manure, which for many Years has been uſed more in *Hertfordſhire*, than in any other County beſides. And that it may come the cheaper Home, we commonly carry up Chaff, Corn, Wood, Flour, or Timber, and fetch, in Return, Soot in Sacks, or looſe, in a Cart or Waggon, which now is ſold for Six-pence a Buſhel,

Buſhel, when in Winter, and at Spring, it is ſold in *London* for Nine-pence. And in this Manner, you may bring down Coal-aſhes, Ox or Cow's Hoofs, Hog's or Ox's Hair, Trotters, Horn-ſhavings, Glovers-ſhavings, Coney-clippings, Pidgeons or Rabbits Dung, againſt the Time of wanting them. By which Piece of timely Huſbandry, a conſiderable Sum may be ſaved in a large Farm. Alſo by buying theſe, at this Time of Year, you have the more Choice, and the greater Aſſurance of their Goodneſs and Meaſure; a Matter of Concern to thoſe who would go the neareſt Way to Work in Farming. But here I repeat my Anſwer to an Objection that may be ignorantly made by ſome, who ſay, that, by long lying, theſe Dreſſings will waſte and looſe their Vertue. As to Soot, I am ſure it is a falſe Notion; for though it may lie cloſer together by Time, than when it is brought Home, yet there will be quite, or very near the ſame Quantity afterwards, if kept in Order. Witneſs the great Heaps of this Manure which lie in Fields from *June* and *July*, to *February* or *March*, when they ſow it over their Wheat, or new-ſown Barley, and yet is ſurrounded with only a few Hurdles, and a little Straw at Bottom, all that Time; for Rain has little or no Power over this ſmoaky, oily, ſulphureous Body; nor can Wind much annoy it, becauſe of its lying in a heavy, large Heap, that lodges it too cloſe to ſuffer this Way.

Old Thatch. This Sort of Dreſſing is now found to be of good Service, when put over Sward, or natural Graſs-land. In *Billington* large common-field Meadow, lying near *Leighton* in *Bedfordſhire*, he that has ſaved his old Thatch, will be ſure to lay it on that Part of the Ground belonging to him, as ſoon as his Graſs is mown off, and expect it to do him great Service, by ſhading the Roots,

and

and preventing Cows, Horſes, and Sheep, biting down the After-meath, or Graſs, too near the Roots, which, when the latter Sort in particular do, it commonly affects next Year's Crop, to the great Leſſening of it: Whereas, when they lay on a good Quantity of old Thatch, they ſeldom fail of a conſiderable Crop the ſucceeding Seaſon, for, by this Means, they have mowed nine Loads off four Acres, at one Mowing-time, in this open common Field. To this Account, I add, that Thatch very much hollows the Ground by its Cover, and by the Worms pulling it in; and thus it lets the Dews and Rains have the freer Acceſs to the Roots of the Graſs, to its great Improvement.

Wood-aſhes, Pot-aſhes, and Coal-aſhes. Where, Peat-aſhes, Soot, old Thatch, *&c.* can't be had, and Wood, Pot, or Coal-aſhes can; then it is good Management to ſow theſe, as ſoon as ever the firſt Crop of Graſs is mown off, for the latter Rains to waſh them into the Ground, and cauſe a ſecond Mowing, or a plentiful feeding After-meath. This is of ſo much the greater Conſequence, as the Aſhes receive the Winter Rains and Snows, to waſh them down to the Roots of the Graſs, and kill Worms, Grubs, Slugs, Dars, and Caterpillars, and fertiliſe the Earth, for the Production of a large Crop the following Year. It was about the Beginning of this Month, 1740, that I got in ſome Clover-hay I let ſtand rather too long before I mowed it, becauſe I could not, for a particular Reaſon, come at it ſooner. Now the Reaſon why I take Notice of this is, to publiſh the great Benefit of even Wood-aſhes (which are the worſt of the three) well watered with Piſs out of Chamber-pots; which I cauſed every Morning to be done, and at laſt ſowed them over Clover, that produced a very great Crop, though a dry Summer ſucceeded,

ed, and yet ſowed them out of a Seed-Cot by the hand Broad-caſt, as thin as poſſible. At *Long-Marſton* in *Bucks*, is a Pot-aſh Kiln, where they make Aſhes from Bean-ſtraw for the moſt Part, and ſell a Vat of them, which contains thirty-two five Buſhel Sacks, which dreſſes one Acre for fourteen Shillings, to be ſhovelled out of a Cart or Waggon, and throwed over Graſs-ground in this Month, or at any Time, till *Candlemas*; and after they are ſo throwed over with a Shovel, they ſcrub them about with a Broom. One hundred and ſixty Buſhels of Wood-aſhes are equal, for this Purpoſe, to half the Quantity of Coal-aſhes; and either of theſe two laſt Quantities is but ſufficient to dreſs one Acre well of Graſs-ground.

Suds, and their Uſe, and Reaſon thereof. Aſhes better than Soot, and why. The Uſe of Soot, and Manner of Vegetation. Soap-Aſhes. According to Mr. Houghton. — The Suds (ſays he) made with Soap, are of excellent Uſe for the Huſbandman and Gardener, and are often applied to the Roots of Vines, Fruit-trees, and ſeveral other Vegetables. A very good Friend of mine, that lived at *Iſlington*, uſed to waſh his Hands and Face with Water and Soap daily in his Garden, and upon ſome of his near Plants he ſprinkled his Suds, which made them viſibly thrive, much more than their Neighbours. And the Reaſon for this may be plain enough, for ſome of the fine Salt of the Pot-aſh, with which the Soap is made, may be imbibed into the Plant; for it is certain it was taken out of Plants, and likewiſe, that the Particles of Lime, that may be there, are great Recipients of the aerial Nitre, as I have ſeveral Times before ſhewn, and muſt always ſpeak of, when it comes in my Way, as a Matter of great Importance. It is for the ſame Reaſon, that the Burning of Stubble, or other Vegetables, fructify Land; and for my Part, I am

am for the Aſhes of Vegetables, before Soot; for the Aſhes we commonly know will emit Salt, and the Earth of them, after it will make no more Lye, will imbibe a new Matter: As Earth, from whence Salt-petre is extracted, will be impregnated with Salt-petre again in a few Years; but Soot, though the Water, when heated upon by the Sun, may poſſibly draw from thence ſome Oil, as we ſee hot Water does from Coffee ſo prepared, yet I cannot learn that fixed Salt can be ſo extracted from Soot, till there can be a higher Calcination, nor then, but in a ſmall Quantity; and the fixed Salt draws Nitre moſt; and the Spirit of Soot is drawn from a Retort filled with it, and placed in an open Fire, by which Means the Soot is farther calcined, and muſt leave its Salt behind, till extracted by a watery Menſtruum, and then will the Salt draw the Nitre of the Air. I do not by this mean, that Soot has no Vertue, for, by its Burning, it is more porous than Wood, and ſo imbibes more; but when the Oil, by the Heat of the Sun, or actual Fire, is extracted, it is more porous ſtill, and will attract ſtronger than before: And, as I have already hinted, I believe that this Aſhes, or its Parts, of Salt, Lime, or Earth, made dry by the Sun, do draw into their Pores, the Nitre of the Air, which is again waſhed from thence by the Dews and Rain, and carried to the Root of the Plants, where they, with other Moiſture, are ſucked in, and from thence, riſe to the Top, by Reaſon of the Sun's making, as it were, an Emptineſs, after the Manner as Water riſes in a Pump, and the fineſt Parts, by the Preſſure of the Air, are driven through the Pipes, till all evaporate to a dead ſtanding Plant, and then by new Fermentations it rots, and the thinneſt is driven again, till the whole is brought to its firſt Principles; whereby, after the ſame Manner, it helps to make

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other Plants. By Conſideration of what is here ſaid, may be eaſily apprehended the Reaſon why Soap-aſhes are ſo much coveted by the Huſbandmen, and eſteemed one of the beſt bulky Manures that are known, for they are greedy for it, and mix it with Chalk, Lime, other Earth, or all, that a great Part of their Land may have ſome. And for a Proof of the Vertue of Soap-ſuds, let a Cabbage-plant be tranſplanted into a poor, hollow Earth, and watered now and then with Soap-ſuds, it will make it grow faſter and larger, than one planted with the richeſt Dung. But for ſmall Herbs, it muſt be mixed with Water, elſe it will prove too ſtrong for them: But always ſave them, for they are near as good as Piſs, to throw on all Aſhes, Dung, and Mould, and on all plowed and Graſs-grounds.

A Letter from a Gentleman in Cheſhire, *to Mr.* Houghton, *concerning* Marle.

SIR, being returned from a Journey, I met with yours lying ready for me, and (as my worthy Friend Mr. *Collins* informs you) I am very willing to promote any ingenious Project for the public Good; but, beſides what ariſeth from my own Inſufficiency (having little Skill in Agriculture, and leſs in Trade) I labour under great Diſcouragement, in Reference to that little which I know, from the conceited, ſurly Humours of People, that will not be beaten out of their old Roads, by the moſt powerful Diſcourſes, bottomed upon Reaſon, and backed by the Experience of wiſe and faithful Perſons. To what elſe can it be aſcribed, that the ſpeaking Trumpet (ſo notably fitted for the Uſe of Criers in great Courts, and Proclaimers of Things to tumultuous Markets) ſhould find little more Entertainment, than

to be ridiculed in Plays? Or, to come nearer the Matter, what elſe can be the Reaſon why the great Advantages got by our Neighbours in *Staffordſhire* and *Warwickſhire*, by ſowing of Clover, can ſcarce prevail with any of us in *Cheſhire*, or our Neighbours in *Lancaſhire*, to ſow a Handful upon the very ſame Sort of Land? Nor the vaſt Incomes, by Marling Land in *Lancaſhire* and *Cheſhire*, tempt our Neighbours of the other Counties, before mentioned, to make a little Search for that great natural Improver Marle, though in ſome Places, there is ſtrong Probability to find it, and, I am ſure, a great Deal of Land very proper for it? When your obliging Token of Papers, already printed, comes to my Hands, I can better tell whether a Deſcription of this grand Husbandry of Marling may do you any Service. In the Interim, I ſhall give you a ſmall Touch of this Sort of Husbandry. And whereas there are theſe five Things to be ſpoken of; *Firſt*, The Sorts of Land to be hereby improved. *Secondly*, The Profitableneſs thereof. *Thirdly*, The ſeveral Sorts of Marle, with their different Goodneſs in Kind and Degree. *Fourthly*, The Method uſed in ſetting the Marle upon the Ground. *Fifthly*, The Manner of ordering the Ground afterwards. I ſhall only ſay a little of the firſt and ſecond at this Time, and, at better Leiſure, ſend you my Thoughts, after Advice with our greateſt Husbands, about the other three. For the firſt of theſe, beſides Meadow-land, which is either ſo good and rich, that it needs not, or ſo within the Danger of Hurt by Water, at high Water-time, that it is not worth the Coſt to be improved, and Wood-land, which is thought to be exceeding good for this Purpoſe, having long reſted; moſt of the Land, poſſeſſed by us here in *Cheſhire*, may be ranked under three general Heads, though theſe

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are capable of three Subdiviſions, *viz.* Sandy-land, Moſſy-land, and Clay-land. The firſt is accounted the beſt for Marling, the ſecond pretty good, and third very bad, according to theſe old bald Verſes.

He that marles Sand may buy Land;
He that marles Moſs ſhall ſuffer no Loſs;
But he that marles Clays flings all away.

But theſe general Rules are not ſo univerſally true, as to hold without Exceptions; for though the browner Sort of Sandy-land, whether plain, or mixed with Pebbles, Slates, or Gravel, or whether it naturally produces Gorſe, Broom-heath, or none of theſe, but a ſhort Sort of hard Graſs, is often found very profitable, being thick ſet with a ſtrong Sort of Marle. The grey Sand is of a far poorer Sort, and not near ſo promiſing, upon the like Coſts of Huſbandry; yea, far inferior to ſome of the moſſy Sort: For that Kind of black Land, if it be firm and unctuous, will bring very good Profit, ordinarily, much better than the greyiſh Sandy, but the ſofter is ſo troubleſome, both in the Marling and Plowing, and withal ſo chargeable, if the Marle-pit be far diſtant, becauſe of the vaſt Quantity that it requireth to make it any whit firm for Plowing; and ſo apt to bury the beſt Part of it in a few Years, by giving Way to its ſinking downwards, that I dare not aſſure my Country Friend he ſhall ſuffer no Loſs by ſuch Kind of Huſbandry. And for the laſt Sort of Land, wherein Clay is predominant, though it is generally bad for this Purpoſe, Experience hath taught ſome of my Acquaintance, in theſe two Counties, that Marle (provided it be not too much in Quantity, or too tough or binding for Quality) will alter the Nature of it, and make it much apter to bear Corn; but

eſpecially to be far better for Grazing when it reſteth.

As to the Profit, I dare not tell Strangers what my Neighbours know to be true, it hath ſometimes been ſo extraordinary, eſpecially when right Sand-land, duly ſet with a ſuitable Sort of Marle, hath the Help of dropping Years, while it is in its full Vigour. For wet Summers, which cauſe a general Dearth, load this Sort of Land with an incredible Quantity, which conſidered (together with the great Price that it will then reach) it muſt needs fill the Owner's Purſe plentifully; and, for all that, be a great Mercy to the Country, which could not otherways be well ſupplied. I ſhall, at preſent, only ſay in general, that if the Land and Marle be both good, and duly ſuited to one another, both for Kind and Meaſure, good Huſbands ſay the Charge can hardly be too much. And I know ſomewhat, by my own Experience, having no Cauſe to complain of ſome Ground that coſt me very dear, becauſe of the Remoteneſs of the Marle, the Profit anſwering all with very good Advantage. And I could name diverſe of my Acquaintance, that have advanced themſelves in the World very conſiderably this Way; and others that, by this Means, have ſupported themſelves and Families from Ruin, whoſe Eſtates would otherwiſe have been ſunk by their Prodigality; inſomuch that I wonder that the Gentlemen of *Staffordſhire*, of our intimate Acquaintance, that have ſo much Land fit, of my own Knowledge, for this Purpoſe, ſhould ſo far neglect their own Advantage, as not to ſend for ſkilful Searchers for Marle out of our Country, which, if ſucceeding, would be imcomparably above their Liming for Durableneſs, and, perhaps, in ſome Places, far leſs coſtly. I am confident, I ſaw Marle there, at a Brook-ſide, and little doubt, but, by Search of

ſkilful

ſkilful Perſons, a good Quantity might be found; but how much, how good, or how conveniently it lies, cannot be reſolved without Search, neither there nor here. He that will not run ſuch a poor Hazard, as that, is not worthy of ſo much Gain. But I am grown too prolix already, I ſhall only add at preſent, that I am,

Sir,

Yours, &c.

Oil-Cake Powder. One thouſand of theſe Cakes makes ten Quarters of Meal, which will manure four Acres of Land well, for twenty Shillings an Acre; for this Number of Cakes coſts four Pounds at the Oil-mills near *Cambridge* City; and ſo great a Streſs is laid on this Dreſſing, that at *Sanden* in *Eſſex*, upon the Borders of that County, lives a Farmer, who erected a Mill on Purpoſe to grind theſe Cakes, whoſe Powder he uſed inſtead of Lime, for Wheat, Turneps, Barley, and other Vegetables, and will be ſerviceable in a great Degree to the next Year's Crop of *Lent*-grain, either plowed in with Wheat-ſeed, or ſown on the Top of that, or Barley, Peaſe, Clover, Rapes, *&c.* It is a very fertile Manure for rather more than two Years. Some allow that this Meal or Powder will not waſh away ſo ſoon as powdered Lime, Malt-duſt, and ſuch like.

Dungs. In the dry Summer 1740, in our *Chiltern* Country of *Hertfordſhire*, it was common to our Practice to carry our rotten Dung out, and lay it on our arable Land, to be plowed in againſt Wheat-ſeaſon, and this in ſeveral Sorts of Manners. One of theſe I ſhall here obſerve, *viz.* As our Haſle-loams on a Clay Bottom were in laſt Month ſtirred for the firſt Time into ſharp Bouts, early in this Month, we draw our rotten Dung into the Field,

Field, and lay it in Heaps, each a Pole aſunder one Cart-load making nine Heaps, all about: Then with Forks or Shovels we ſpread it over the Ground, and by this Sort of Plowing, moſt of the Dung falls between the deep Routs, which is according to our Deſire, becauſe, on our ſecond Bouting or Plowing in this Dung as ſoon as it is laid on, all or moſt of it is deeply covered, and thus made to mix with the Earth againſt Wheat-ſowing Time, and well ſecured in the Interim, from Droughts. Then in *September* or *October* we harrow down all the Routs croſs-ways, plain, which further mixes the Dung with the Earth; And now it is ready to be plowed the laſt Time, and ſowed with Wheat. Hence I am to obſerve the Benefit belonging to this Practice of plowing in our Dung betimes: And this is done, becauſe it prevents the Seeds of Weeds that may be among ſuch Dung from growing, for, if any ſhould ſprout, they will be ſo diſturbed by the next Plowing and Harrowing, as to be ſpoiled: Whereas, when Dung is laid on juſt at Sowing-time, and then directly plowed in, if there be any Seeds of Weeds capable of Vegetation, they will then have full Room to grow without Diſturbance. In the Vales alſo, Dung is likewiſe better plowed in at the firſt Stirree-time, than at the laſt Plowing, when the Wheat is ſowed, becauſe, after that, there is Nothing to hinder the Growth of the Thiſtle and other pernicious Weeds.

FINIS.

THE

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THE

MODERN HUSBANDMAN,

For the Month of *Auguſt.*

CHAP. I.

Of Servants and other Harveſt-Men.

THE *Neceſſity of providing a ſufficient Number of Men for Harveſt-Work.* It happens, in ſome forward Years, that we begin Harveſt in *July*; but, as this Month is the chiefeſt of all others for this Purpoſe, I have forbore Writing on this important Subject till now: The firſt and main Branch of which is certainly the laborious Part of Mankind, in Cutting, Gathering, and Inning the Fruits of the Earth, after almoſt a whole Year's Care, Charge, and Pains have been employed in their Management and Preparing them for this Purpoſe. In writing of what is to be done by a Farmer in this Month, I am obliged to vary from my uſual Method in all others of the Year, by not giving, in the firſt Place, an Account of plowing different Lands in divers Countries; becauſe, in the Beginning of *Auguſt*, we ſeldom have Time to do any Thing elſe but reap, mow, and carry in our Corn, Graſs, *&c.* And, when this *Auguſt* Month is attended with a kind dry Seaſon, it rejoiceth the Heart of the Farmer, and the Nation in general;

for, by this, we may eat our Bread in Perfection. ——— *Ye ſhall eat before the Lord your God, and ye ſhall rejoyce in all that you put your Hand unto, ye and your Houſholds wherein the Lord hath bleſſed thee*, Deut. xii. 7.———But, as the Bleſſing of dry Weather is uncertain, a prudent Farmer will not provide himſelf with fewer Hands than are neceſſary in wet Seaſons; for, by the Want of even one Man, I have known a ſmall Farmer ſuſtain great Loſs: It is therefore a Maxim, that a Farmer had better have too many Hands than too few; or, according to the old Proverb, *All covet, all loſe.* As for our yearly hired Servants, as they are fixed at Home, and ready on all Occaſions, I have only to obſerve, that, next to them, we ſhould be provided with auxiliary Helps, which with us we call *Month's-Men*; becauſe it is our Way in *Hertfordſhire*, for the moſt Part, to hire theſe very early, leſt, when we are moſt in Want of them, we have them to ſeek. For this Reaſon it is, that at *Chriſtmas* we give theſe Men and their Wives a Dinner, and thoſe we approve of, we then, by a Shilling Earneſt and the uſual Wages, ſecure them againſt next Harveſt. In ſome other Parts, they hire them for ſo much Money, to ſtay with the Farmer till all his Corn is got in, let it be ſooner or later. If we engage them by the Month, our common Wages at *Gaddeſden*, twenty-eight Miles from *London*, is thirty-five Shillings and their Board; or, if they be Neighbours, and board themſelves, than three Pounds is allowed them, on this Condition, that in Caſe a wet Time happens, and no Work can be done abroad, they thraſh, cut Wood ſmaller than it is, for Fewel, or do any other Buſineſs within Doors, that is cuſtomary for them to do; and, for this Purpoſe, thoſe wary Farmers, whoſe Conveniency allows it, will provide ſuch Work ready, as may anſwer the Occaſion. Now, the Number of Servants and

Month's-

Month's-Men, ſufficient to reap, mow, and inn our Harveſt, is computed by the Number of Acres of Wheat; that is to ſay, where a Farmer, whoſe Farm is compoſed of arable Land, has thirty Acres of Wheat, Barley, Oats, Peaſe, *&c.* in Proportion, he will want ſix Men at leaſt, reckoning one Man to every five Acres of Wheat. But, beſides our Help from Servants and Month's-Men, we oftentimes let out ſome Parcels of Wheat to reap by the Acre, and Barley and Oats to mow, *&c.* Their Quantities and Prices I ſhall hereafter take Notice of. In the mean Time, I cannot finiſh this Article I am now upon, without further obſerving the great Benefits that attend the Conveniency of a Farmer's having a full Number of Hands for Inning his Harveſt, becauſe no Author has hitherto been particulat enough in explaining the ſame; for none that have wrote on Huſbandry for more than an hundred Years paſt (as I know of, except Mr. *Tull*) were capable of doing it from their own Experience. I therefore ſhall, in a more ample Manner, enlarge on the ſame as follows, *viz.*

A fuller Account of the ſame. It is certainly one of the chiefeſt Articles in Farming, to be provided with a ſufficient Number of Men to get in Corn, while the Weather is good: The Neglect of which is beſt known by their Want in Time of Need; and, though their Charge may be ſomewhat more at firſt Appearance, yet it will be more than compenſated for the following Reaſons:

Firſt, If rainy Weather confines the Men to the Houſe, they ſhould thraſh, work in the Woodhouſe, *&c.*

Secondly, It gives the Farmer the beſt Opportunity of making the moſt expeditious Uſe of good Weather, while it laſts.

Thirdly, By this he may get in his Corn dry, and to an early Market, that ſometimes affords the

greateſt Price in the whole Year, eſpecially when the former Year's Wheat was got in bad, and this good.

Fourthly, By obtaining a quick Harveſt, he has a moſt valuable Opportunity of plowing up Clover and other Graſs-lays, or Wheat, Barley, Bean, or Pea-Stubbles, early, for ſowing therein Wheat-ſeed, Turnep-ſeed, Rape-ſeed, Rye, *&c.*

Fifthly, It often happens in the *Chilturn* Country, that thoſe Turneps, ſown in *July*, become fit to hough in this Month, which, if not done in due Time, may burn, ſet, and be ſpoiled; therefore a full Number of Hands will be of great Service to hough and ſave them.

Sixthly, If Rain ſhould continue ſo long, as to ſoak the Kernels of Wheat in the Ear very much, as they lie in Reaps on the Ground, or in Sheaves in Shocks, then your Hands will do great Service, by raiſing the Ears a little higher, and laying them hollower on the Ground to dry again without Turning; for Turning the Bottom Side uppermoſt is apt to take off the fine reddiſh Colour of the Wheat in ſome Degree; or, by unbinding the wet Sheaves, and ſpreading them on the Ground to dry again; or, by ſetting the whole Sheaves more in the open Air, in order to prevent the Corn's Sprouting, for, if it grows in the Field after Reaping, it will make the worſe Bread, and by Conſequence fetch leſs Money at Market.

Seventhly, It likewiſe frequently falls out, that the Autumn, or the laſt Shoot of Weeds, grow predominant in this hot Seaſon in our incloſed Fields, get a great Head, and are in this Month very apt to ſhed their pernicious Seeds. At this Time then it is that Plowings are more than ordinary neceſſary to be performed; for ſometimes a third Plowing for Wheat, in *Auguſt*, does more Good than one or two before did, becauſe thoſe Weeds that the Share and Coulter

Coulter cut and tore, being very much weakened by the Wounds they received at the late Plowings and Harrowings, may now meet with a final Deſtruction, by ſuch an additional Culture or Contuſion of their Parts, as may make them loſe their Sap, and canker the remaining Roots in the Ground. Here then the Plough-man and a Boy-driver are neceſſary to be ſpared from the Company of Reapers and Mowers; and, if they are not enough without them to carry on the Harveſt-work, the Farmer, in Courſe, muſt ſuſtain a great Loſs. It was in the Harveſt Seaſon, 1739, a Farmer in our Parts ſuffered the Loſs of thirty or more Pounds, by not having a ſufficient Number of Hands ready to get in his Corn in due Time; for, by this very Means, his Peaſe and Oats, in particular, were ſo waſhed by Rains, that moſt of them grew in the Field, which with many other ill Accidents, too tedious for mentioning here, may be prevented by having Men enough, and making a right Uſe of them afterwards. Be, therefore, yourſelf the firſt Man up in a Morning, for ſounding, at your Door, your Harveſt-horn, to call your Men at four a Clock, that they may not lie in Bed, and loſe their Time for Want of timely Notice. And be ſure never to want a Hand that can Hovel; that is, a Man who is capable of placing Wheat-ſheaves or other Corn on a Hovel, ſo as to lie in that advantageous Poſture as is neceſſary to prevent the Damage of Weather, *&c.* and who can thatch the ſame as ſoon as the whole Quantity of Grain is laid on.

CHAP.

CHAP. II.

Of Victualling Harveſt-Men.

THE cheapeſt Way of Victualling Harveſt-Men. This is alſo another important Article; for, as good Œconomy ought to be the Study and Practice of all good Huſbandmen, it ought to be ſo in a more than ordinary Manner acted by the Farmer, who is liable to the moſt Charges and the moſt Enemies of any Artificer, and particularly at this Time. Here then he has an Opportunity of diſplaying his Talents of Skill and Care, in having ready his *March* ſtrong ſtaliſh Beer, and a *June* brewed mild Ale, which, being drank in a Mixture, goes a great deal farther than altogether mild Ale, by quenching Thirſt the better, reaching their Heart ſooner, and keeping them in Health ſurer. The next Thing that is neceſſary to have in Readineſs at this Time is Pickle-pork, which, I will ſuppoſe, was ſalted down in *December*, or in ſome of the three following Months; this is mighty uſeful to eat with lean Beef, and commonly together becomes an acceptable hearty Diſh, with a Plum Pudding. At another Time a Piece of fat Bacon and lean Beef, with a Pudding, is dreſſed, and made agreeable to all Palates, and the more when Turneps, Carrots, or Cabbage are added: But a Plum Pudding the firſt Fortnight, and a plain one after, is our conſtant Cuſtom in *Hertfordſhire*. When a *Chilturn* Farmer rents a hundred or more Pounds a Year, it is the Practice of ſome to kill an old Cow, Bull, or Bull-ſtag, that has been fatting in Clover, *&c.* ſome Time before, and, if it is too much for himſelf, he ſells the reſt to a neighbouring Farmer; or, to kill a few fatted old Ewes. For my Part, I not only fatted and killed Mutton into my

my Houſe, in the Harveſt, 1741, but alſo a very good Barrow-hog, that I fed till it weighed about thirty Stone, and killed ſo late as *July*, without fearing it would not take Salt in hot Weather; for it took ſo well, that the very laſt Piece proved intirely ſweet, and did me a great Service in leſſening my Expences at the Butcher's Shop, where Beef at this Time commonly ſells for the greateſt Price. And, that our Harveſt-Men may go on with a light Heart, and a nimble Pair of Hands, we allow to each, beſides Small Beer at Will, a Quart of ſtrong Drink, every Day; and, when they unload Corn, we generally double or treble that Quantity. To which I add, that as Cheeſe is a moſt convenient and pleaſant Food to the Harveſt-Men in the Field, between Dinner and Supper Time, it concerns every Farmer to provide it at the beſt Hand in due Time; accordingly we ride to *Sturbitch* or to *Baldock* Fair, and there buy it in the cheapeſt Manner. But, to be compleat in this Article, there ſhould be never wanting the excellent *Cheſhire* old Sort, beſides either *Glouceſter*, or *Warwick*, or *Somerſetſhire* Cheeſe, that every Man may uſe which he likes beſt; and, for Breakfaſt, our uſual Way is to ſend a Milk-poſſet or plain Milk well breaded in a tin Kettle, or large Pitcher, to the Field, and repeat the ſame at Supper, unleſs there be offal Meat left, which our Maid generally haſhes and minces up; or, inſtead thereof, gets ready a good Parcel of Wiggs or Cakes, that, when ſopped in Ale, gives the Men a ſatisfactory Repaſt. But I knew a Quaker Farmer, who managed his Matters ſo cheap, as to buy but only one Lot of Beef, weighing ſix Stone, during his whole Harveſt in 1740, becauſe he ſupplied the Place of Beef with ſeveral fat Ewes that he killed in that Time, which with his pickled Pork and Bacon, *&c.* anſwered his Purpoſe; and yet he was not one of the leaſt Farmers, for he commonly

commonly employed ſix Months-Men every Harveſt, beſides his own yearly domeſtic Servants, which were four in Number; and, for this Purpoſe, he always, before this Year, uſed to buy a Quarter of Beef into his Houſe every Week throughout the Harveſt, till he got into this Way of fatting and killing his own Sheep and Hogs. Another fed his Harveſt-Men with fat Bacon moſt Part of the Harveſt, with ſome Beef between, and ſometimes fat Bacon and lean Beef together, with Pudding. There are ſeveral other Inventions made Uſe of by our Country Dames, for refreſhing and pleaſing Harveſt-Men, with Variety of cheap Diſhes; but, as every Particular would be too long to mention here, I intend to compile a Treatiſe of their whole Œconomy in the Management of a Farm, in Oppoſition to Mr. *Bbadley*, who has packed a large Parcel of Foreign and *Engliſh* Receipts together in two Books, intituled *The Country Houſewife*, and ſold for 2 *s.* 6 *d.* each, more fit to be peruſed by Quality or City Cooks, than by a Farmer's Wife or Maid Servant.

CHAP. III.

Of the Prices of Reaping and Mowing Corn.

THE Prices given at Gaddeſden *for Reaping and Mowing Corn.* If Wheat is an upright Crop, we give four Shillings an Acre for only Reaping and making Bands, when we let it by Hire; but, if it is plowed or beat down by Winds, or Rain, then more. If ſtanding Wheat is reaped and bound, the Price is commonly ſix Shillings an Acre. If Wheat is ſtanding and reaped by the Farmer's own Company, according

to

Cuſtom, they reap half an Acre a Day each Man and make Bands; but, when Men are employed by Hire to reap by the Acre, they generally cut three Roods for each Man's Share; if an Acre, he is an extraordinary Workman. Barley is eighteen Pence an Acre mowing, Oats one Shilling, Peaſe and Beans eighteen Pence, Thetches the ſame. One Man generally mows two Acres of Barley in a Day, three Acres of Oats, one of Peaſe, one of Thetches, and one of Beans. In the Iſle of *Thanet*, in *Kent*, they give great Wages for Reaping their large Crops of Corn, for here they are good Managers. One Man, hired for only five Weeks into the Houſe is allowed three Pounds; or, if by the Day, he has two Shillings each, and his Victuals, during the whole Harveſt; or, if he takes his Reaping by the Shock, he is allowed four Pence each for Cutting and Binding, only ten Sheaves to the Shock. But Countries differ in this Reſpect, according as they lie more or leſs remote from *London* and the Sea-ſide, or from great Cities or Towns.

CHAP. IV.

Of Carriages neceſſary for Harveſt-Work.

Of Horſes, Carts, and Waggons for Harveſt-Work. All theſe, or ſome of them, are ſo neceſſary, that there is no getting our Harveſt-Corn in without them. Where incloſed Fields lie about the Houſe, and on a Level, the Carriage of Corn may be performed in the moſt expeditious and cheapeſt Manner, by only Carts, as ſeveral do in *Hertfordſhire*, &c. But where Fields lie at a

Diſtance, and there be hilly Ground in the Way; then the Waggon is of all other Carriages moſt convenient; becauſe this can be drawn much ſafer down a Hill than a Cart, as not being ſo liable to be overturned; can be better ſtopped by chaining up a Wheel, the Fill-Horſe works in more Eaſe and Security, and a greater Quantity of Corn is brought Home at a Time, than is commonly done by a Tumbrel-cart. Of theſe Waggons there are ſeveral Sorts. About *Sandwich* in *Kent*, they make Uſe of large ſtrong Hutch-waggons to do all Sorts of Work; in another Part of that Country, they have a light Waggon with very low Wheels, made ſo narrow in the Middle, that they can turn in a very little Room, and are the ſafeſt Sort I ever ſaw, for drawing Loads down and along the Sides of Hills. In *Suffolk* and *Norfolk*, in their heavy ſandy Land, they work the lighteſt Waggon that is, becauſe almoſt its whole Body is made with round Sticks. In *Hertfordſhire* we travel with a large, cloſe, high Sort. But, in many Parts of the Weſt of *England*, they uſe neither Cart nor Waggon, becauſe their narrow, rocky, ſmooth, hilly Roads, and other Grounds, will not admit of their Draught, ſo that they are forced to inn all their Corn on Horſes Backs. The next Thing I have here to take Notice of, is the employing of theſe: To do which, I ſhall ſhew a great deal by a little; and that is, how cheaply a ſmall Farmer managed the carrying his Corn in Harveſt: His incloſed Field lay on a Level about his Houſe, and, having only three Carts and four Horſes, he employed one Cart in the Field for loading it with Wheat-ſheaves, another driving on, and a third at home emptying. That in the Field had one Horſe in it, that a driving, three, and that Cart in the Barn unemptying, by its Sharps reſting on a Truſſel. For all which

Work

Work five Men at leaſt muſt be in Action, and ſo in Proportion for a larger Farm.

CHAP. V.

Of preparing Mowſteads, Frames, Hovels, &c. for Laying on and Preſerving Corn to the greateſt Advantage.

HOW to prepare Mowſteads for laying Wheat in Barns, in the moſt profitable Manner. Previous to the mowing Wheat-ſheaves, in Barns, a Mowſtead ſhould be prepared to lay them on, for preſerving them from the Damp of the Earth, and in ſome Meaſure from the Power and Miſchief of Rats and Mice; for which Purpoſe nothing exceeds a Foundation of Furzen or Whin Faggots, with a thin Layer of Straw over them, becauſe theſe are ſo prickly, that it is impoſſible Vermin ſhould make any Lodgment therein, or without great Pain walk over them, which conſequently ſecures the Bottom Sheaves, that lie in moſt Danger, from their Deſtruction. And, the better to do this, we place our firſt Layer of Sheaves almoſt upright, and very cloſe to one another; on the Ears of theſe a ſecond Layer or Row muſt be placed a little ſloping, and ſomething ſhort of one another, with their Arſes outermoſt and ſo on, with this Caution, that the whole Body or Mow of Wheat-Sheaves lie Eighteen Inches or two Feet ſhort of the Barn-Boards or Wall, in order to give ſufficient Room for a Man or Cats to go round the ſame at Pleaſure. Thus, by laying the firſt Row of Sheaves upright, and the reſt in a ſloping Poſture, cloſe together with their Arſes outward, the whole Mow will lie tight

tight and compact, and give the Air an Opportunity to get in and very much dry away the Dampneſs that may ariſe from Wheat-ſheaves being got in too ſoon, or lying in too cloſe a Body. But, where Furz or Whins cannot be had, Thorn Faggots and Straw laid over them, or Fern, or Straw alone, laid as a Bed about two Feet thick, muſt ſupply the Place of Furz. However, in Caſe the Weather continues ſo long wet that you are obliged to get in your Wheat-ſheaves damp, make a Hole in the Middle of each Bay or Mow, by letting an empty Hogſhead, Barrel, or Kilderkin, or four-ſquare Boards tacked together, remain in the Middle of it, till the Corn is up to its Top; then put it up, and in this Manner leave a hollow Place or dry Well, where, if a Mouſe falls into it while the Sheaves are ſweating, it will ſuffocate it. Thus Corn cut unripe, or inned not thorough dry, will be delivered from that Miſchief which generally attends Dampneſs, and cauſes ſometimes a Mow to be on Fire, or breeds Mouldineſs, or rots both Grain and Straw, or at leaſt gives the Wheat an ill Scent and Coldneſs. In either of theſe Caſes, you muſt expect the leſs Price, for the firſt Thing a Wheat-Buyer does, is to thruſt his Hand into a Sack; and, if it feels cold or damp, he refuſes and goes to another, or elſe leaves a diſcouraging Offer behind him.

To ſtack Corn Abroad, and keep it from Vermin, Fowls, or taking Wet, or other Damage. A Stack or Rick of Corn, or Hay, ſhould have a Foundation of Furz, Thorn, or other Faggots; the lower and moiſter the Ground, the higher it ſhould be raiſed, even from one to three Feet; for, if the Bottom of a Stack was to lie very near a watery Earth, two or three Feet of its lower Part may be ſpoiled. A Stack or Rick is laid in Form

of

of a long Square, with its Top in Shape of an old-faſhioned Houſe's Roof, for the Water to fall quickly off. In this Shape Wheat-ſheaves in the Beginning ſhould be laid with their Arſes outward all the Way up, to let in the Air to the Ears of Corn, and keep Wets and Vermin from entering. And, the better to prevent Rains hurting our Stacks of Corn, we commonly lay Peaſe, or Beans, or only Straw, on the Top-ridge Part of it, and then timely thatch with Straw over all; for, in this Caſe, Barley, Oats, or Thetches are not proper, becauſe either of theſe will ſtain and damage the Wheat-kernels, that is, ſo mix among them, that they cannot well be got out. And in this Form it is, that we ſtack Wheat-ſheaves, Barley, Oats, Peaſe, Beans, Thetches, Clover, *St. Foyne*, and natural Hay. But, to keep any of theſe Corns the more ſecure from Accidents, ſome lay them on a Frame of Joiſts with fixed Boards over them, ſupported by Stone, Brick, or oaken Pillars, of two Feet or more high, with ſquare Caps of Stone or Wood upon each, to hinder the Aſcent of Rats, Mice, and other Vermin, and prevent the Miſchief of Damps and Vapours of the Earth. But, if the Pillars are made of Oak, then we nail Pieces of Tin about their middle Part, to hinder the Claws of Vermin's getting up. Others will lay their Corn in a long ſquare Stack, placed on a Frame of Wood, erected ſo high, that Carts and Waggons may ſtand under it, and ſo make it ſerve for both Uſes.

To lay Corn in a Cock or Hovel. A Cock is always made round in Shape, with Wheat-ſheaves or other Corn, laid either on Furzen or Thorn Faggots, or others; or, on Straw on the Ground; or better, on a round Frame of Timber, fixed on Pillars; here the Arſes of Wheat-ſheaves are likewiſe placed outermoſt, and laid wider from the Bottom,

Bottom, till they are raiſed to the middle or broadeſt Part, and then again narrower, till they are carried up almoſt to a Point; but, before the Whole is finiſhed, ſome Straw ſhould be fixed on the Top-part over the Sheaves, to keep them from the Damage of Rains, and, when all is ſettled, we thatch with Straw half Way, or all over the Slope, which by moſt is reckoned the beſt Faſhion of all others; for, having a narrow Bottom, wide Middle, and pointed Top, that gives the Air the greater Opportunity of keeping the Corn ſafe, dry, and ſweet. Others will place their Corn on a Frame of Wood in leſſer Parcels, and call it a *Hovel*, whereon they mow their Sheaves of Wheat, and thatch as before. But, whether it be a Stack, or a Cock, or a Hovel, it ought to be placed diſtant from the Drip of Houſes, or Trees, and as near as can be to the Thraſhing-floor of the Barn. Above all, it ought to be timely thatched and fenced from the Damage of Cattle.—I have known the Middle of a Wheat-cock hang five Feet wider than its Bottom. On a round or octangular Hovel-frame of Wood, or other Sort, when they are in the Shortening-work, they lay their Sheaves in by Degrees, and the Ears lower than ordinary, which ſerves to bind all firm towards the Center of the Hovel, *&c.*

To lay and preſerve Corn in Granaries. Theſe are certainly the beſt Contrivances of all others, for ſecuring Wheat-ſheaves and other Corn in the ſafeſt Manner from the Damage of Weather and Vermin; becauſe nothing of theſe can enter here, as being compoſed of a cloſe boarded Floor, boarded or bricked Sides, and covered with Tiles or Thatch. The Whole being ſet on Stone or Brick Pillars, two, three, or more Feet high, with Caps over them. Some of theſe have ſo cloſe and ſtrong a Floor, that they thraſh their Corn on the ſame. Others will do this, and have Bins made at

one

one End of the ſame, to keep the thraſhed Corn in the drieſt Manner from the Power of Damps and Vermin. Such a one of two Bays I had the Care of building for a Gentleman that owned *Chedington* Farm, in *Bucks*, which was ſet on Stone Pillars with Caps, floored and ſided with Boards and tiled. Alſo in this there were ſeveral Bins made to preſerve Corn from Duſt, and keep it againſt a proper Market.

To lay and preſerve Corn in a Dutch *Barn.* This is a good Contrivance, and becomes more and more in Uſe for laying in Corn, and ſecuring it from Weather, commonly in a ſquare Poſture, by large high Poſts, or Pillars, fixed in the Ground, in which Holes are made for Pins to go in to lower, or raiſe higher, its wooden Pent-houſe Top at Pleaſure. Here the Corn is kept dry and ſweet, becauſe the Top is covered, and all the Sides of it expoſed to a free Air.

Why forward ſown Wheat is not always the beſt. It is generally allowed that forward ſown Wheat proves the beſt Crop, but it is not always ſo, as appears by the following Caſe: In the Beginning of the Winter, 1739, the forward ſown Wheat grew briskly; but, the latter Part of the Winter coming on ſeverely cold, and likewiſe the Spring following the ſame, the forward ſown Wheat received ſuch a Check, that the Weed grew and got the Start of it, occaſioned by its ſpending itſelf in a forward Growth, which ſo weakened it at this Time when its Roots ſhould have the greateſt Strength, that it was eaſily overcome by the new ſprouting Weeds that proved at this Time ſtronger and hardier than the Wheat. While the latter ſown, being late in its Thriving, got Strength enough to withſtand the Weed, and became by far the beſt Crop; and the rather, becauſe, as it was ſowed late, it eared late, and therefore miſſed a bad Blooming-

ing-time; for, as ſoon as the Weather permitted, the forward Wheat got into Bloom, but, a cold wet Time happening, it cauſed it to miſs in the Ear, while the latter ſown ſucceeded; for, by its blooming late, it eſcaped great Part of the cold wet Weather, and enjoyed its Bloom in Perfection.

CHAP. VI.

How Husbandmen and Farmers may advance their Corn four Pence or ſix Pence a Buſhel.

THIS I wholly tranſcribe from a Book wrote by one *Thomas Tryon*, who profeſſed himſelf *a Student in Phyſic*; how well he has hit the Nail on the Head, I leave to my Reader:

——— 'Now here (ſays he) I beg the Country-'man's Leave to tell him one grand Error or 'Miſtake moſt of them commit, in the Manage-'ment of their Corn at Harveſt; but, whether 'he will give me Leave or not, am reſolved to 'let him underſtand it, and by Demonſtrations in 'his own Way, *viz.* They do, for the moſt Part, 'let their Wheat, Barley, and Oats, ſtand till it 'be over-ripe, or rather rotten-ripe, that the 'Straw becomes ſo brittle, that it will hardly ſup-'port the Ears, and thereby it ſheds more than 'was ſowed, eſpecially Barley, which is not half 'the Prejudice or Loſs; for Over-ripeneſs, in any 'of the afore-mentioned Grains, endows it with 'many ill Qualities, depriving it of its natural 'Complexion, rendering it thin, ſmall, and dwind-'ling, light in Weight, and branny. The Bread 'made thereof will be of a ſad brown Colour,

'and

'and eat dry and huſky, and the Malt, made 'thereof, is poor, thin, lean, and huſky, being, 'as it were, deprived of its natural Sweetneſs, 'which Evils can never be retrieved, neither by 'Art nor Nature. I muſt confeſs it is a hard and 'difficult Thing to hit the juſt and proper Time 'and Seaſon for Cutting, and therefore the Medi-'um between its Standing too long and Cutting 'too ſoon is to be regarded; but, of theſe two Evils 'or Extremities, the Leſſer, which is the Latter, is 'to be choſen; for, if any of the afore mentioned 'Grain be cut down ſix, ſeven, eight or ten Days 'before it be hard or thorough ripe as they call it, 'it will be the better. Barley ought to lie in the 'Swarth, two, three, or four Days before it be 'ricked or barned, as the Weather will permit; 'the like is to be underſtood of Wheat and Oats; 'and what thoſe Grains want of their full Ripe-'neſs, they will attain in the Cock and Mow, by 'which Method you will preſerve all the ſpiri-'tous fine Virtues and Strength of theſe Grains; 'they will maintain their natural Colour, yield more 'and better Flour, weigh heavier, and make whi-'ter and ſweeter Bread, and Malt made thereof 'will be more large, plump, and afford a greater 'Sweetneſs and Spirit; and all Sorts of Corn, thus 'gathered in, are to be preferred for all good 'Uſes,, Intentions, and Purpoſes, before that which 'ſtands to Over-ripeneſs, till it becomes hard and 'flinty, and of a duſkiſh Colour; for, when any 'Grain, or other Thing, as Herbage, and the 'like, comes to its full Strength and Ripeneſs, 'then immediately the pure volatile Spirits and 'ſweet oily Body begin to evaporate, for there 'is no ſtanding ſtill in Nature; for, ſo ſoon as 'the groſs phlegmy Matter is digeſted or exha-'led by the Influences of the celeſtial Bodies and 'Elements, and brought to its higheſt Degree of

'Ripeneſs, which have opened all Gates in Nature, 'and have ſet the before locked up inward Powers 'and ſpiritous Qualities on the Wing, or as it were 'at Liberty, then immediately the ſame celeſtial 'Influences will powerfully work, evaporate, and 'exhale all the good Virtues of that thing; for the 'groſs phlegmy Body, in the Houſe and Dwelling-'place of the Spirit, and all Eſſences and good 'Virtues are contained therein; and, if this was not 'ſo, then the Spirit and Virtue of Things would 'not be perceptible to our Senſes, which is more 'aptly and compleatly contained and underſtood 'in Man, for in him is contained the true Nature 'of all Things: Therefore the firſt Step to the un-'derſtanding of all Things is the Knowledge of 'himſelf; for this Cauſe, when any Vegetation, 'Fruit, or Grain hath obtained its higheſt Perfec-'tion and Ripeneſs, you muſt then provide them 'another Houſe or Place, that you may thereby 'ſecure the inward Power and ſpiritous Virtues 'from the common and groſs Operations and In-'fluences of the Elements; for, as the *Wiſe Man* 'ſays, ——— *There is a Time and Seaſon for all* 'Things under the Sun———which, if regarded 'and underſtood, is the higheſt Point of Philoſo-'phy in Huſbandry. And it is farther to be not-'ed, that all Sorts of Corn and Herbage, made 'into Ricks and Stacks, is to be preferred before 'that put into Barns or Houſes, as is manifeſt by 'theſe Reaſons: *Firſt*, That all Corn will in 'Ricks and Stacks ſettle much cloſer than in Barns. '*Secondly*, It hath a finer and more perfect Scent 'and Smell. *Thirdly*, It is more ponderous and 'weighty. *Fourthly*, All Sorts of Cattle will chuſe 'it, and eat it better, and prove much fatter: 'The natural Cauſe thereof is, Ricks and Stacks, 'let them be either Hay, or Corn, ſtanding in the

'open

'open Air, the fine, thin, ſpiritous Vapours there-
'of do powerfully penetrate them on all Sides,
'even to the very Center of ſuch Qualities, and
'do continually communicate and repleniſh it
'with their good Qualities, even by a ſympathe-
'tical Operation, for the true Uſe of all Things
'conſiſts in the fine ſpiritous Vapours of the Air;
'and therefore, whereſoever the Circulation there-
'of is hindered, the beſt and real Virtues are ſub-
'ject to be wounded by a groſs Humidity, which
'all Places do contract, where the Air and plea-
'ſant comforting Rays of the Sun are obſtructed
'or hindered from having their free Ingreſs, Egreſs,
'and Regreſs; for this Cauſe, Corn or Hay in
'Barns, are not, nor cannot be ſo good, as that
'in Stacks or Ricks, for the Walls and Tiles of
'Barns and Houſes obſtruct and prevent the free
'Penetration of the forementioned fine Vapours,
'and ſweet refreſhing Influences of the Sun and
'Elements, that it cannot have its free Circula-
'tion; and therefore the Air ſo pent in, becomes
'groſs, dull, and humid, which does ſuffocate the
'Spirits thereof, and this does ſecretly and power-
'fully work and penetrate all Parts of ſuch Corn
'or Hay, which does alſo dull and flatten the beſt
'Virtues thereof; for this Cauſe, Hay nor Corn will
'not ſettle ſo cloſe, ſmell ſo well, nor weigh ſo
'heavy, neither is it ſo good for any Intents or Pur-
'poſes; for the Weight of Corn or Hay is one of
'the trueſt Marks to know its Goodneſs, and that is
'heavieſt which has moſt Spirit and Life in it.
'But whenſoever any Accident, or undue Order,
'happens, by which the fine inward Virtues and
'Spirits are wounded or evaporated, whether is be
'Corn or Hay, then it becomes light and chaffy,
'and of little Virtue or Uſe. Why ſhould Corn
'or Hay, in Barns, weigh lighter, ſmell groſſer,

' and not ſettle ſo firm and hard, if the Spirits ' aud Virtues thereof were not ſuffocated and ' dulled, ſeeing all the true Marks of Goodneſs ' are oppoſite. Do but make your Houſe as clean ' and ſweet as poſſible you can, and then ſhut your ' Windows and Doors, and let them continue ſhut ' three or four Weeks, will not the Air in that Time ' become groſs, humid, and ſtinking; your Goods ' moiſt and mouldy? For theſe Reaſons, Corn, nor ' Hay are not ſo good in Barns and Houſes as that ' in Stacks, neither will it make ſo good Bread, ' nor Malt, nor will Cattle prove ſo well with it. ' Therefore Farmers may with great Advantage ' ſave themſelves that Trouble of building ſuch ' conſiderable and chargeable Barns, only ſmall ones, ' or Houſes, that may ſtand conveniently to thraſh ' their Corn in, near the Stacks or Ricks; beſides ' there is a Sort of Hovels by the Name of *Dutch* ' Hovels, that are very commodious, and anſwer ' all the End of Barns, which are built with a ſmall ' Charge; and theſe will keep your Corn or Hay ' dry, and yet not prevent the free Circulation of ' the Air.

' If the forementioned Rules be obſerved, your ' Straw will not only be much better for Cattle, ' and all other Uſes, but your Corn will be lar- ' ger; by which Means it will advance a Buſhel, ' or a Buſhel and a half in twenty; that is, the ' ſame Quantity, that meaſures eighteen or nine- ' teen Buſhels, will then meaſure twenty Buſhels; ' or the ſame Acre of Wheat that bears you thirty ' Buſhels, will then bear thirty-two Buſhels, and ' each Buſhel ſhall weigh three or ſix Pounds *per* ' Buſhel more. The like is to be obſerved in Bar- ' ley and Oats. Note, after any Grain is thraſh- ' ed, it being heaped up together, it keeps to the ' moſt Advantage in the Chaff, if the Quantity be

' not

' not too great, nor the Time too long you intend ' to keep it.'

CHAP. VII.

Of Reaping Wheat.

WHEN Wheat ought to be reaped. In a very hot Summer, about twenty-four Years ſince the Harveſt began ſo early, that many had all their Grain in by *Lammas-Day*, which ſo provoked one Farmer, that he would get in all his Thetches in by that Time, to ſave his Credit, leſt he ſhould be thought the moſt negligent one in the Pariſh, but he paid dear for this Punctilio; for the Thetches were ſo damp, that he was obliged to carry them out of his Barn into the Field again, to be dried and houſed in a better Manner. But, in the Year 1740, it was about the tenth Day of *Auguſt* before I and moſt others began Reaping our Wheat, which, according to my Obſervation, was the lateſt I ever knew, occaſioned by a moſt ſevere Winter, and long, cold, and dry Spring and Summer. The Wheat, that is commonly ripe ſooneſt with us, is the White, or *Holland* Sort. The lateſt are the bearded Wheats. The red Pirks, or red *Lammas*, come in between. But this is governed in a great Degree by the Time of Sowing, the Soil, the Aſpect, and their ſtanding nearer or farther from the South. When Wheat is ſtruck or damaged by Inſects, and the Straw becomes ſpotted and hardened too ſoon, ſo that the uſual Aſcent of Sap or Nouriſhment is checked and ſtopped,

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the Corns rather decreaſe than increaſe in their Growth; or, when the Kernels are by Mildews glewed, or, as it were, bound in their Hoſe, or Sheath, ſo tight, that they cannot enlarge and grow bigger, I ſay, then we commonly reap ſuch Wheat very forward. In the next Place, when Wheat is fallen down, eſpecially when this happens while the Stalk is green, as it often does by the Violence of Winds, the Continuance of great Rains, or by the Largeneſs of the Crop; then the Sap cannot aſcend to feed the Ear, and is enough to oblige us to reap it the firſt of any, leſt ſuch laid Wheat grow as it lies: I mean, leſt the Kernels ſprout in the Ear, by Wets or the Dampneſs of the Ground, that in this Poſture they lie very near to. When Wheat is much ſtruck or mildewed, ſome reap it as ſoon as it is full kerned; for, as I ſaid, the longer it ſtands the ſmaller it gets, as has been proved by letting a Piece of it ſtand, after the reſt was reaped. The Ripeneſs of Wheat is eaſily known to the meaneſt Ruſtic, by the Whiteneſs, Brownneſs, or Redneſs of the particular Sorts of Straws and Ears, and by rubbing out the Kernels of an Ear in one's Hand. However, none ought to be reaped till the Milk is out, and the Corns be hard. Reaping Wheat early gives the Pirks and *Lammas* Sorts a bright golden Colour, which is ſo agreeable to a Wheat-buyer, that he will give more for ſuch, than if it ſtood till full ripe; becauſe it will weigh heavier and yield better Flour. But, when it ſtands too long, it becomes a greyiſh red, and its Flour will be deadiſh, unpleaſant, and lighter. A Farmer reaped it almoſt greeniſh, and ſo early, that many told him he would ſuffer by it; but he ſaid he never had finer coloured Wheat, nor any that ſold better at Market. The ſame I experienced laſt Year, 1741, when my chief Reaper told me, it was not ripe enough to cut; but, as it happened, there was not

a brighter finer Sack of Wheat brought to *Hempſtead.* Indeed, had it been reaped greeniſh, the Kernel would be apt to ſhrink, be guttery, and more muſt go to fill the Buſhel; yet, if this is not done in too great an Extream, it is better ſo than when it ſtands till it is too ripe, for then the Kernels will loſe their bright Colour, get a thick Skin, and blackiſh Ends, be very apt to ſhed at Reaping, Binding, and Carrying; and, if Wheat is to be ſown on the ſame Spot of Ground for a ſucceſſive Crop, ſuch ſhed Kernels, very probably will beget ſmutty ones. Accordingly, it is our general Method in *Hertfordſhire*, to begin Cutting, before Wheat is full ripe, not only for the foregoing Reaſons, but alſo for enjoying the Weather, in its longeſt Days; and where a Farmer has great Quantities of this Grain, that he may get to the End of his Work in due Time. Others make it their Rule to begin Reaping, if the Wheat is clear of Weeds and Straw dried; then they reckon it fit to bind as ſoon as reaped. Others venture to reap when they think the Wheat is ready, though the Weather is diſcouraging, becauſe, when it is cut down, there is a greater Opportunity of getting it into Barn than when it is ſtanding.

How Wheat is reaped by the hacked Sickle, and ſmooth Hook, or mowed by a Scythe. In ſome Countries the hacked Sickle is uſed, in others the ſmooth Hook, for reaping Wheat. But, where a Crop of Wheat is very thin indeed, and ſhort withal, I have known it mowed with Scythes. In this Work the Foreman is commonly our head Ploughman, who is therefore called *Lord*, becauſe he ought to have Honour and Encouragment given him that he may go on the faſter; for, where ſuch a one is too ſlow, the whole Company does the ſame, and the Farmer is brought under great Loſs. On the other Hand, there may be a very great Fault committed

mitted by his going too faſt, as well as too ſlow. A Farmer near me, who rented about an hundred Pounds a Year, was thought to have left as much Wheat behind the Reapers in only one Harveſt, as would ſow ſix Acres of Ground, and this by cauſing his Men to make too much Haſte; for, by ſo doing, ſome was left ſtanding, and others ſcattered about. However, this Loſs proved ſuch a Monitor to him, that he never would afterwards hurry his Reapers. This has been a Fault more in Practice formerly than now, becauſe People are grown wiſer and ſee more and more the Folly of this Sort of Indiſcretion. Another Farmer I know that gives his Foreman a private extraordinary Encouragement, that he may go on faſter than ordinary, on Purpoſe to reap a great deal in a Day, that the Maſter may get the more out of the poor Man's extreme hard Labour; but this Bite is commonly diſcovered by one Means or other, and then it puts the reſt of the Company under ſuch Reſentment, that they purpoſely ſpoil the more Wheat. But, whether they are ſenſible of the Bribery or not, in all Companies of Reapers, there be ſome not ſo good Workmen as others; when then ſuch are obliged to keep up, they are forced to cut the Straw high, or tread ſome down, or leave other Ears ſtanding; ſo that it has been often proved that ſuch Men, by this very Means, have left their Day's Wages behind them, to the Farmer's great Loſs, but to the Gleaner's Benefit. Hence it was, that a Company formerly uſed to reap three Roods a Day, and make Bands, till they found the Inconveniency of it, as I before mentioned. And, therefore, now it is the common Cuſtom, where Wheat ſtands well, to reap only half an Acre a Day, and make Bands, by a Company.——In the Iſle of *Thanet*, in *Kent*, they reap their Wheat the higheſt that ever I ſaw, becauſe

cauſe they make Uſe of their long Haulm to thatch Houſes and Barns, and as Fewel for drying of Malt, and to take up the leſs Barn-room. Likewiſe in Vales, where their Fewel is moſtly Haulm, they are obliged to cut their Wheat high to leave a long Stubble; for here it is ſo neceſſary, that, when a Month's-man hires himſelf for Harveſt-work, he commonly makes a Bargain with his Maſter to carry him home a Couple of Loads of Haulm to his Houſe, which he mows himſelf.——But, in *Chilturn* gravelly Ground and other light poor Soils, the Caſe is altered, for here we ſeldom have very tall Wheat growing; on which Account, to get as much Straw as we can to thatch our Houſes and Barns, and to feed and litter our Cattle with it, we cut as low as we well can, ſometimes till the Men hit their Knuckles againſt the Stones; ſo that, if Reapers have not here Time enough allowed them for ſuch careful ſtooping Work, it may prove to the Farmer's great Prejudice.—In reaping a Wheat-ſtitch of two Bouts, the Reaper ſtands with one Foot in the Thorough, and the other on the Stitch, keeping a Cut forwarder on the near Side, and thus carries on two Cuts of equal Breadth before he ſteps again. But ſome take a long Cut firſt on the near Side, and a ſhorter one on the farther Side; but then they ſeldom cut the Straw level, nor make ſo good Work; and, if the Wheat is ſhort, they by this Method commonly leave ſome of the underline Wheat behind on the near Side.——In reaping Broad-lands they carry on one Cut firſt on the Off-ſide next the Corn, and another on the near Side in a Company; but, if a Man reaps by the Hire ſingly, at ſo much an Acre, he may carry on three Cuttings before he moves his Feet.—In the Vale of *Aylesbury* four Men reap a half Acre Land before them. The firſt Man begins next the Thorough, the reſt follow, every one taking three

Cuts to his Share; and of the four the two next the Ridge have the hardeſt Work, becauſe here the the Wheat is commonly biggeſt.——In three Bout Lands two are generally ſet to reap it, by making two Cuts each Man. So, in four Bout or ſix Bout Lands, the Number muſt be accordingly. Yet all theſe Rules are not wishout Exception; for, if Wheat falls down by its high Growth and large Ears, or by being blown, or laid down by Rains, then the Reaping muſt be performed as Conveniency permits; for, in this Caſe, the Cuttings muſt begin at the contrary Side from the Ears, and the Work will go on ſlowly.——When Wheat is very thin indeed, ſome have mowed it with Scythes. Others, when it is thinner than ordinary, have pulled it up with their Hands, as I ſhall give a more particular Account of by and by. But the beſt Reaping is in Rows of drilled Wheat, becauſe here it commonly ſtands upright, when that ſown promiſcuouſly falls down, and becauſe here, the ſingle Rows growing at about a Foot aſunder, the Workman has the more Room and better Guide to cut it low, free, and faſt. If you reap Wheat when the Kernel is ſoft, let it remain in the Field long enough to harden, and have a Care you do not inn many Weeds with it, for theſe will keep the Wheat damp and make it ſtink. In Caſe your Wheat is wettiſh or damp when you are obliged to bind it, do not cap it, for, if you do, it will cauſe the Ears to grow as it ſtands in Shocks; but when it is dry and you fear Rain, then you may ſafely do it. It is the firm Opinion of a great Farmer, that no Sheaves of Wheat ſhould be capped, unleſs they ſtood in *Welch* Shocks of twelve in all; that is, in two Rows againſt each other, five in a Row, and capped by two Sheaves on their Top; for then the Rows are ſhort enough to be covered.

CHAP.

CHAP. VIII.

Of the Management of Wheat after Reaping.

HOW Wheat is to be managed after Reaping. As Wheat is cut, its Reaps are laid even one by another in flat Rows, for the Sun to harden, and the Air to plump the Kernels in the Ears, dry up the Sap in Weeds, and ſtiffen the Straw; here then depends a great deal of the Farmer's Profit, for, if he enjoys a kind Time in and after Reaping, till he inns his Corn, it will fetch conſiderably more, than if it was waſhed by Rains to a Degree of its growing in the Ear: Yet one or more moderate Showers have often proved an Improvement to the Grain, by enlarging its Body, meliorating its Flour, and cauſing the Ears to part with their Kernels and their Chaff much eaſier than when no Rain happens. However, to provide againſt the worſt, all judicious Farmers will keep Hands ſufficient in Readineſs, that, in Caſe too much Rain falls, they may be employed, in Time, to raiſe the Heads of the Wheat a little from the Ground, by laying them as hollow as poſſible, for the Air to have Room for entering between and drying them ſooner; ſuch Management oftentimes puts a Stop to the begun Growth or Sprouting of the wet Kernels. But we never wholly turn the Ears, unleſs there be a great Neceſſity, becauſe, by ſuch Turning, the golden Colour of the Wheat will be much diminiſhed, and a waſhed, pale, dead one lodged in its Room. However, after one, two, or three Days or more, letting the Wheat thus lie abroad in Rows or Swarths, in a fine Day, after the Dews are diſperſed and gone, we bind up the Wheat in Sheaves, and then ſhork them in ten, twelve, fourteen, or

fifteen to the Shock, to ſtand in a double Row, made by placing one Sheaf againſt another, to farther harden the Kernels and dry out all Humidity, that otherwiſe might remain in the Ears, Straw, and Weeds; but in Caſe there be Danger of Rain, then many will take a Sheaf at each End of a Shock, and ſpread them over the Tops of the reſt. Others will never cap at all, ſaying, if it rains and wets at one Time, it will dry another; and, when all the Ears ſtand up in the Air, the Danger is not ſo great, but that many will venture it. In *Middleſex* and *Kent*, they generally bind as they reap, in order to preſerve that fine Colour, which the Ears, by lying on the Ground, often loſe, and alſo, becauſe they reckon it cheaper; for, when they hire Reaping by the Acre, as moſt do in theſe Parts, it is done for ſix or ſeven Shillings each; but, if Wheat lies firſt ſome Time on the Ground (as is conſtantly done in *Hertfordſhire*) before it is bound up, the Trouble and Charge will be the more; for the *Hertfordſhire* Farmer refuſes to reap and bind it preſently, leſt the Moiſture in the Corn, Straw, and Weeds be bound up in the Sheaves; and accordingly, this ſometimes happens, ſo that the middle Part of ſuch Sheaves will be yellow and hoary, and give an ill Scent to the reſt of the Grain. However, this is a general Rule with all good Farmers, that to let Wheat ſtand long enough abroad, to have its due Cure, is the beſt Way for the following Reaſons, *viz. Firſt*, By its ſtanding ſo abroad, the Kernel gets plump, and therefore will fill the Buſhel the better; and, though then it becomes thorough dry by Keeping, yet will there be a little Swell and Improvement both in the Skin and Flour. *Secondly*, If the Corns had a bright Colour by being early reaped in good Weather, by ſtanding dry ſome Time abroad, it will improve it, and cauſe

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it to fetch the greater Price. *Thirdly*, All ſuch Wheat, as has had its due Cure in the Field, will certainly thraſh eaſier, part with its Chaff quicker, and grind better, than that inned too ſoon. And, when it is thus prepared by a Swell, a good Colour, and made eaſy to thraſh, handle well in a Sack and grind freely, then it may be relied on to ſell for the moſt Money at Market. But when a long rainy Seaſon happens in Harveſt-time, notwithſtanding the Sheaves ſtand erect in Shocks, and even when they are capped, the whole Sheaf may be wet through and the Ears grown. In this Caſe we can only unbind and ſpread them on the Ground again for Drying by finer Weather, till they can be bound up a ſecond Time. However, as the Weather may continue ſo long rainy, that Wheat cannot be got in dry, there are Ways and Means to ſupply the Defect in a great Meaſure by the following Methods. But, before I farther proceed, I have to obſerve here, that in ſome Places, when Wheat is in Danger of being ſpoiled by the Rains, they lay it up in one or more great Parcels in the Field, and cover it by Thatching or otherwiſe, in order to bring it out and expoſe it afterwards when the Weather is ſettled for fair: And, thus it will paſs through a Degree of Sweating, if Time enough is allowed it, to its great Advantage; for ſuch Sweating abroad will prevent its much Sweating in the Barn, which is the worſt Place to ſweat it, becauſe its cloſe Lying here (if the Wheat is dampiſh) ſometimes cauſes it to be muſty and bad coloured. Make Bands to bind the Sheaves in a dewy Morning, and they will not break near ſo ſoon as if made in a Sun-ſhiny dry Time.

CHAP.

CHAP. IX.

Of Curing damp or wettiſh Wheat.

TO cure Wheat that the Farmer is obliged to carry in damp or wettiſh, ſix ſeveral Ways. When great and long Rains happen at Reaping-time, and when Wheat lies on the Ground, or ſtands up in Sheaves, the Grain commonly becomes very much damaged by the Loſs of its Colour, getting a thick Skin by the Flour's ſticking and being glewed, as it were, to it, by repeated Wets, which ſometimes cauſes the Kernels to ſprout, and retain an ill Scent, to the great Hindrance of its making good Bread, or Pudding, *&c.* and by obliging the Farmer to take a poor Price for it at Market. Now, though it is a Maxim, that Corn had better be ſpoiled in the Field than in a Barn, becauſe there is the more Chance in the former for its Recovery than in the latter; yet, by the ſeveral Ways I am going to mention, it may be ſaved from ſpoiling in either of them; to which Purpoſe I ſhall begin with what a Farmer at *Kenſworth* did in ſuch a Caſe.—*Firſt*, He ſpread his wet Sheaves of Wheat over the Hair-cloth of a Malt-kiln, and leiſurely dried them in Parcels, till he had his whole Quantity cured to his Deſire; and it ſo well anſwered his End, that he ſold the ſame for two or three Shillings in a Sack more than his Neighbours did theirs, that did not take this Method; for the Corns did not ſuffer by the little Fire that was made for them, becauſe the Chaff in the Ears defended them from the Smoke and too much Heat. *Secondly*, or a ſecond Way is, as it is practiſed about *Hertford* Town and many other Places, to cut off all the wet Ears, and give them a Sun-heat on a Hair-cloth, over a wire Malt-kiln, which

which is beſt done by laying on the Ears of Wheat as ſoon as the Malt is off, and the Fire is extinguiſhed; for the remaining Heat will dry them regular and ſweet. A *third* Way, is to dry wet Ears of Wheat better on a Cockle Oaſt-kiln; this Kiln is uſed for drying Malt, Hops, or wet Ears of Wheat, *&c.* in the ſweeteſt Manner; and, for theſe Reaſons, it gets more and more into Uſe with thoſe that value the pureſt Commodities before the worſt Sorts, and is rejected by few or none, except it be for drying too ſlow for their mercenary Profit; that is, it does not by its violent ſudden Heat blow up or extend the Malt Kernels, till their Skins are ready to burſt, and ſo fill the Buſhel with fewer of them than if they were dried by a regular gradual Heat, which this excellent Kiln will do by the Fewel of Sea-coals confined and burnt in a Cheſt or Trunk of four broad caſt Irons, an Inch or more thick, whoſe Smoke is made to paſs about a ſpacious Room through Flews or Chimneys of Brick built along the Inſide Walls of ſuch a Room, near the Kiln: By which Means the Air of the Place is ſo heated, as to dry Malt, Hops, or wet Ears of Wheat, *&c.* by as gentle a Fire as can be deſired, even to ſo moderate a Heat as that of the Sun. I have ſeen more of theſe in *Kent* than any where elſe. Here, if the Wheat Ears have their due and timely Turnings, they will meet with ſo ſweet and dry a Cure, that they will keep a long Time in good Order. But, if naked Wheat-kernels were to be dried on common Malt-kilns, you may expect them to be ſo ſmoaked or tainted by the Fire of the Place, without a great deal of Care, that they will hardly ſell in a Market. A *fourth* Way is, to cut off all the wet Ears, and ſpread as many of them on a Barn-cloth as it will hold at a Time in a thin Manner, for the Sun and Air to dry them abroad;

abroad; and, when one Parcel is done, another may be lain out, and ſo on. A *fifth* Way is, in Caſe the Weather prove rainy, to ſpread the Ears very thin all over the Barn-floor, and ſet open every Door and the Gates belonging to the ſame, that the Sun and Air may have a full Freedom to paſs through and dry them. A *ſixth* Way is; if you cannot inn the Sheaves of Wheat dry, but are obliged to mow them wet, put ſome dry Straw between the Layers, and it will drink up the Moiſture ſo as to prevent a great deal of Miſchief. How ſerviceable then the Knowledge of theſe Ways may prove to many Farmers, and to the Nation in general, I leave to my Reader's Conſideration, who, if he is one that ſows a Quantity of Wheat, has no Reaſon to grudge the Price of my Book, if it was only for this Information; becauſe a Man may be ſo catched by Rains, as to have almoſt all his Wheat ſpoiled, and then out of what muſt he pay his Rent and get a Livelihood, ſince one Year's Crop of Wheat is that which ſhould pay it for two Years, and which, by ſome of theſe Means, may be ſaved in a great Degree from that Damage or Ruin that might otherwiſe attend it; being what no other Author, in ſuch Variety, has ever diſcovered before. Hereafter I intend to give a farther large Account of preſerving Wheat and other Grains in a ſound Condition, a long Time after Thraſhing it out in the Month of *December*.

How, by wrong Management, two Farmers got each of them a bad Crop of Wheat off a Clover-Lay. About a Mile Diſtance from me, two Farmers next Neighbours fell into one and the ſame Miſtake: Theſe had each of them a Field of Clover, that proved ſo ſerviceable to them, as to tempt them to let it lie till near *All Hollan-*

tide

tid, before they gave the Ground one Plowing, and harrowed in Wheat-Seed: But, as it happened, they paid dear for feeding their Clover ſo late; becauſe, the froſty Weather coming on pretty early, it met the Wheat upon the Chip, killed a great deal of it, ſtinted the reſt, gave the Weed an Opportunity of coming up thick, and the Sun full Room, the very long dry Summer following, to parch the Wheat-roots, and, in ſhort, to return a very poor Crop this Harveſt, 1742.—A Farmer, above all Mechanics, ought to conſider of ſeveral ſucceſſive Years Tranſactions beforehand, leſt he involves himſelf in thoſe neceſſitous Miſtakes of ſowing Ground out of Seaſon, or with an improper Seed, to his great Detriment, as was the Caſe of theſe two Farmers, who may be ſaid to loſe a Sheep for a Half-penny Worth of Tar; for, if they had plowed and ſowed their Clover-lay the latter End of this Month, or in next, it would undoubtedly have brought on ſuch a timely Head, as would have been ſufficient to ſecure it againſt the Severities of all rigid Seaſons: Or, as they had eat their Clover ſo late, they had better have given it ſeveral Plowings, and ſowed the ſame Ground the Spring following with either Barley, or Beans, or Peaſe: Or, if they could have got the ſame Time enough into a fine Tilth, by the Beginning of *February*, and then have ſown it with Wheat, it might have anſwered well; for a Farmer has at leaſt four to one the better Chance of getting a good Crop of Wheat, if the Seed is ſown in a Tilth-earth at that Time, than on a Clover-lay in *November*, becauſe then the Cold diminiſhes, and the Sun daily increaſes in its nouriſhing Heats, as I intend, in that Month, to give Examples of.

How a Farmer got a good Crop off a poor Ground. This Obſervation is from a ten Acre incloſed, gravelly, loamy Field, in our *Chilturn* Country,

which the Farmer, by ſeveral, alternate, different Sorts of Plowings in the Summer-time, got into a fine Tilth, and in this Month ſowed it with Wheat-ſeed, without any Dreſſing or Manure, as his uſual Way was when his laſt Crop was Peaſe; and therefore dreſſes his Ground but once in ſix Years, and then after Oats. This Field, all Winter, looked in Appearance almoſt like a Fallow, and as barren as a Highway; but, in *May* following, it ſhewed itſelf in Splendor; for, as it was not accompanied with Weeds, nor had ſpent itſelf in Winter-growth, the Farmer ſaid, he did not doubt of a good Crop, for the foregoing Reaſons; and it proved ſo accordingly, for he truſted chiefly to the Fineneſs of his Earth, which being full of Pores, or minute Holes, or Interſtices, the ſmall thready Fibres of the Wheat-root eaſily inſinuated themſelves, and run into all the Extent that was neceſſary for a full Growth of their Kernels and Ears, which were the better nouriſhed by the great Quantities of Dews (the richeſt of Dreſſings) the Earth in this ſpungy Condition was liable to collect and lodge.

CHAP. X.

Of Leaſing Wheat.

LEASING or Gleaning of Wheat. This Article, as it wholly relates to the Relief of the Poor, is in an eſpecial Manner made known by the Creator himſelf in Holy Scripture, which ordains the Owner of a Field to leave a reaſonable Gleaning of Wheat, *&c.* each Year for the Benefit of the Indigent and Neceſſitous,——*Lev.* xxiii. 22.

And

And when ye reap the Harveſt of your Land, thou ſhalt not make clean Riddance of the Corners of thy Field, when thou reapeſt, neither ſhalt thou gather any Gleaning of thy Harveſt; thou ſhalt leave them unto the Poor, and to the Stranger: I am the Lord your God.—— This is of ſuch Importance, that many poor large Families ſupply themſelves with Bread by it moſt Part of the Year after; but as there are to be the Wicked and the Juſt, as long as the World endures, both the Farmer, and the Gleaner may be guilty of Oppreſſion on this Account. And firſt the Owner is, when he gathers all the looſe Ears he can, while his Wheat ſtands in Sheaves unſhocked or afterwards, either by himſelf or by thoſe of his own Family, or by a few Favourites and no others, which too many do to my Knowledge, and thus deprive the Poor and Miſerable of that Succour, which is appointed them by the omnipotent Giver of the Corn and all Goodneſs; ſuch are certainly guilty of a horrid Ingratitude and Avarice, which ſometimes has been attended with viſible and direful Conſequences. In the *Weekly Journal* News-Paper of the 27th of *Auguſt*, 1739, there was inſerted the following Relation,--'*Dartford*, *Auguſt* the 23d, '1733, we hear that, laſt Week, the Tempeſt of 'Lightening was ſo great that it burnt much 'Corn that ſtood in Sheaves on the Ground of a 'noted Farmer of this Town, that the Poor im-'puted to a juſt Judgment for his Cruelty the 'Night before, in ſtopping them and taking away 'the Corn they had gleaned in one of his Fields, 'which he burnt in his Bayliff's Oven, and there-'by had near fired the Houſe.'——I alſo knew a petty Farmer, that would always oblige his Daughter to leaſe among his Sheaves of Wheat, before he would ſuffer any of the common poor Gleaners to come into his Field. And if they did at all, it was upon a double Diſadvantage, firſt, upon her

ings, and next, after the Fowls of the Air had had a Share. But he ſuffered (and very likely for this) for his Flock of Sheep died great Part of them in a ſurpriſing Manner, which he was enabled to keep by Means of a Common he had a Right to, rather than by the little Ground he occupied.—I muſt likewiſe obſerve that there are many grievous Abuſes committed by Gleaners, and which ſeem to increaſe more and more every Year; for ſome of them are ſo unconſcionable, that they do not care what they take from the Farmer, ſo they can get off Law-free; and to this Purpoſe it is now become too common for ſome to take the Advantage of the Farmer and his Servants hard Labour in Harveſt-time, and, while they are enjoying their Reſt, to leaſe in the Night-time, and thereby take an undiſturbed Liberty of filching little Parcels from the Reaps, or pulling out what they pleaſe from the ſtanding Sheaves, thinking a little out of each cannot be miſſed, while they amaſs a Quantity.—A Boy of a Day Labourer, innocently talking of how much his Father had gleaned, ſaid, his Father went out of Nights to glean.—A Farmer near me, wanting to buy ſome gleaned Wheat to ſow, was recommended to a particular Woman, who ſold him, I think, two Sacks full, and yet kept a good Quantity for her own Uſe. This ſurpriſed him, to think, that a ſingle Woman could glean ſo much in one Seaſon; but others thought cloſer, and believed ſhe was one of the Night-gleaners.

CHAP.

CHAP. XI.

Of RYE.

THE Cutting and Inning of Rye. This Grain when ſown alone, is generally ripe ſooner than Wheat, becauſe it is ſown earlier in a light warm Soil; for the Roots of Rye will not proſper in a heavy, cloſe, and watery Earth, and ſo affect dry hot Seaſons, that it requires Part of two Summers and one Winter to grow in; and where its Roots have Room to expand themſelves, and run with Eaſe and Freedom, it will become a tall Crop. Rye has this good Property beyond all or moſt other Corn: After it is eat down by Horſes, Cows, or Sheep, in the Spring Seaſon, it will ſurpriſingly and preſently ſhoot again into a new Feeding-crop. Therefore it is of vaſt Service of late Years, to thoſe Farmers eſpecially, who ſuckle Houſe-lambs, for feeding their Ewes early and late in the Year, and if they ſhut up a Field of Rye in Time, though they have eat it two or three Times before, a plentiful Corn-crop may ſucceed, which in this Month or *July* will be ripe, as may be known by the Yellowneſs of the Straw, and on Examining of the Ears; then we reap it as we do Wheat, and after it has lain a Day or two in a Row on the Ground, for killing Weeds, and hardening and plumping the Grain, we bind it in Sheaves, with rather more Eaſe than we do Wheat, becauſe Rye grows thick and tall in light Soils, with its fine Straws moſtly upright; when then it is ripe and clear of Weeds, ſome bind it as ſoon as reaped, and, after it has ſtood ſome time in Shocks in the Field, will inn it in a dry Part of the Day; but it is abſolutely neceſſary to prevent Wets coming to the Ears, for Rye has a leſſer Body and a thinner

thinner Skin than Wheat, which makes it more liable to be ſpoiled by rains, that will ſoon cauſe the Kernel to ſprout and grow in the Ear. This Grain is not always ſown alone, for in many places they ſow Wheat with it, and this commonly by harrowing the Seed in on Broad-lands, on Account of having the Crop grow the thicker and ſurer; for, if one miſſes the other may hit, as we do when we ſow peaſe or Beans with Oats together. The firſt is called *Muſtin*, the laſt Mixture *Bullimen*; and it is by ſuch Mixture that the Bread, which is made of it, becomes moiſt, is of a pleaſant Taſte, and healthful to the Eater. The Wheat being ſown early with the Rye, they are commonly or very near ripe together, and accordingly are reaped, and managed, as all clean Wheat is. Rye muſt be ſown early in a very fine Tilth, that it may get a good Head in Time, big enough to hide a Hare before the Froſts come on to pinch it; and then you may do as they do about *Shefford*, near *Biggleſwade*, in *Bedfordſhire*, in their ſandy Lands, where they feed and fold their Sheep on it all the Winter till *March*, and thus ſo dreſs and fertiliſe the Crop by the Dung and Urine of the Sheep, that they reap a great Advantage from it at Harveſt.

How a Farmer got a good Crop of Rye on a Pea-Stubble, &c. This may be done by any Tenant without breaking through the Articles of his Leaſe, which though it generally provides againſt Groſs-cropping the Ground, yet by this Method he may have a Crop free of any Forfeiture; becauſe it is only a Spring-feed for Sheep, that dreſſes, not impairs the Ground, and is to be fed early enough off to give the Farmer Room for a Fallow Seaſon to ſucceed the ſame Year, according to his Covenants. It is performed thus: As ſoon as the Crop of Wheat, Barley, Beans, or Peaſe are got off in this Month, immediately give the ſame Ground

Ground (which muſt be a Sand, Chalk, Gravel, or a dry Loam) one Plowing, and harrow in two Buſhels of Rye-ſeed, twice long-ways and once a-croſs. Thus you may ſecure a good Food for your Ewes, Cows, or Horſes, to eat the firſt Time in *March*, and ſo on at Times till *May*, when you may plow the ſame up again, and harrow in Turnep-ſeed, or prepare the land for a Wheat-crop. From this Management I received conſiderable Benefit in the cold dry Spring 1742.

An old Farmer's Miſtake in ſowing Rye. I have known ſeveral loſe their Seed, their Labour, and their Time in this Affair, by giving their Wheat-ſtubble, in our *Chilturn* Country, only one Plowing, and ſowing and harrowing in three Buſhels of Rye-ſeed on one Acre for the aforeſaid Purpoſes, on a ſour, ſtiff, loamy Soil; for, on ſuch auſtere ſurly Land, Rye will not grow to any Advantage. Of this Miſtake my Neighbour, an old Farmer of above thirty Years Experience, was guilty; for indeed it may be taken for a Rule, that Rye will not grow on a Clay, nor proſper in any Ground that is much of its Nature, as this Man found to his Coſt. But, for a farther account of Rye, ſee next Month.

CHAP. XII.

Of Inning a Crop of Barley.

MR. Bradley's *Account of Inning Barley.* Barley is known to be ripe, *Firſt*, by the Straw's becoming yellow, ſo that no Part of it be of a greeniſh Colour; and, *Secondly*, by the Hardneſs of the Grain; and, *Thirdly*, by the Hanging down of the Ear: It is then time to mow it, if the Weather

Weather be fair. The Grain of Barley is not very apt to ſhed, and therefore may lie three or four Days in the Swarth after it is cut, turning it now and then that the weeds in it may dry the better; for, if the Weeds in it are not thoroughly dry, then, in putting it up, the Barley will mow-burn; but, when we perceive it to be pretty dry in the Swarth, we muſt firſt cock it in the Field for one, or two, or three Days before we carry it Home, which ſhould always be in dry Weather; for it will bear Wet in the Field the worſt of any Corn, becauſe it is very apt to ſprout. The four and ſix rowed Barley will be ripe at this Seaſon; the Hardneſs of the Grain, and the Yellowneſs of the Straw, are Demonſtrations of their Ripeneſs.

I have here tranſcribed all that he has publiſhed of Barley for the Month of *Auguſt*, in his Book intitled, — *The Gentleman and Farmer's Director*, — printed in 1732, Price 2*s*. 6*d*. wherein my Reader may ſee to how little Purpoſe ſuch ſhort Sketches are. Had he, indeed, wrote of Huſbandry as well as he did of Gardening, he would have come off more like a Practitioner than a meer Scholar in this copious Science. I mention this, becauſe I have been ſollicited to write a leſſer Number of Sheets for one Month, that the Price of each Book might be leſſened accordingly; but, if I had acquieſced to ſuch Propoſal, I muſt in Courſe have marred my preſent Deſign, which is to explain the intricate Art of Huſbandry, according to the preſent Practice in its numerous Branches, for the Benefit of the Farmer, the Gentleman, and Nation in general, which to do in an ample Manner, I could write many more Sheets than what I here publiſh; but, as a greater Price than two Shillings might perhaps hinder the Sale of my Books, I have confined my Pen to the leaſt

Number

Number of Sheets that ſuch infinite Variety of Subjects in Agriculture will permit of; for to cramp Directions in Huſbandry, in a very little Quantity of Paper, muſt cauſe a Loſs of that Clearneſs and Exactneſs which are abſolutely neceſſary to make my Writings uſeful.

Sorts of Barley, and when fit to mow. Barley, for the moſt Part, is ripe in this Month; but the firſt that is mown is the *Fulham* or *Rathripe* Sort, which in the Southern Parts of *England*, in a hot Summer and warm Soil, is commonly fit for the Scythe two or three Weeks before any other, and in ten from Sowing-time. If a *Chilturn* Soil is well prepared for it by ſeveral Plowings and a good Dreſſing, it may be ſown in *March*, to be ripe in *July*; but, if a Turnep-ground, it may be ſown in *April*. I have known it ſown in *May*, and yet ſooner ripe than our common *Hertfordſhire* Sort. *Rathripe* Barley has a great Advantage of all others, for, by its quick Growth, it is the leſs While abroad, and therefore leſs expoſed to great Rains, which are Enemies to the Colour of this Grain; and this is the Reaſon why the *Chelſea* and *Fulham* Farmers are thought to have the whiteſt, moſt thin-ſkinned, and melloweſt Barley in *England*, from off their ſandy loamy Land, that always fetches the greateſt Price for Seed and Malt. I never knew Barley in general ſo white as it was in the dry hot Summer of 1741, becauſe little Rain fell, and it was early ripe. To have Barley of a pale Colour and thin Skin, a particular Farmer, in our Parts, obſerves to begin mowing his Barley, when he perceives the ſmall black Veins or Streaks are gone off the Kernels, and the Ears browniſh and half bent. Others more commonly obſerve to let it ſtand till the Ears hang quite down, cloſe to the Straw, before they mow it, and take this for an Indication of its being full ripe. About *Ware*,

in *Hertfordſhire*, which lies near twenty-two Miles from *Gaddeſden*, they make Abundance of Malt for ſupplying the *London* Brewer, and are as careful in getting in their Barley as they are of their Wheat; and it is here that they commonly cut down their Barley before it is full ripe, becauſe they are of Opinion the Kernel is thinner ſkinned than if it ſtood longer, the Colour paler, and the Quantity of Flour the ſame; that the chalky, gravelly, and ſtony Grounds produce the fineſt ſkinned and coloured Barley, but that the deep Moulds on a Clay Bottom, and ſtiff Loams, yield a thick-ſkinned Sort of a reddiſh Colour. With us we reckon the riper the Corn the more Flour it contains, and that moderate Showers, a little before Mowing, plump the Barley, and cauſe it to thraſh the eaſier out of the Ear. Generally we begin Mowing our Barley after the Wheat is got in; but, in the Year 1740, Barley was ripe as ſoon as Wheat. I knew a Farmer that formerly ſowed *Fulham* Barley 24 Miles Diſtant from *London*, and commonly had it ſo early ripe, thin-ſkinned, and pale-coloured, that Men from about *Windſor* uſed to come to *Hempſtead* Market, and buy his, and other ſuch, for making it into what they ſell at the Grocers and Druggiſts Shops in *London* for *French* Barley. The Method of doing it I intend to make known hereafter. In this Month, in ſome very dry Years, might be ſeen the Evenneſs of thoſe Crops of Barley, whoſe Seeds were ſoaked one Night in my prepared excellent Liquor, which made it come up preſently, protected it from the Worm, and cauſed the Seed-kernels to branch and ſpread into many fine Stalks, and ſhade its Roots; when Barley-ſeed, ſown in the naked, dry, common Way, is mown in two or three Ripeneſſes. There may alſo be ſome Difference in the Colour of Barley, not only by Soil and Weather, but likewiſe by good

and

and bad Plowing, *&c.* That Ground, which is made an intire fine Tilth for Sowing Barley in it, commonly produces whiter and thinner ſkinned Barley than Turnep-ground fed with Sheep, that has only one Plowing given it, and produces an earlier Crop. Sprat Barley is ſown in wet and dry Grounds; about *Eriff* in *Kent*, they ſow it in their rank Marſhes, becauſe it is more hardy, and will not run into Straw like the common Sort; but I have ſeen it grow in drier Ground about *Bridge* in that County, where they ſow it in ſuch Land the latter End of *February:* Three Buſhels of this Sort will ſow an Acre, when four muſt be uſed of ours, becauſe it has a two-rowed flat larger Ear that requires more Room. This Barley will ſtand upright, as having a ſtrong Stalk, when ours will fall down, and therefore is more conveniently mowed. Its Skin is ſomewhat thicker than ours, but the Kernel rather larger, is harder to thraſh out, and longer making into Malt, but better for the Diſtiller's Uſe, as yielding more Flour and Spirits than others. It makes good pale Malt Drink, and better Bread than ours, when it comes off a dry Soil and is inned well; for with us we generally ſow the common Barley, degenerated from the *Fulham* Sort. There is another Kind I have ſeen, that is a large-bodied Barley, and grows as ſuch in a bearded Ear; but its naked Kernel looks like Wheat, and is certainly the beſt of Barley for making Malt, *&c.* The four-rowed big Barley we ſow hardly any of, in the Southern Parts of *England*, becauſe it is a ſmaller Grain, and makes coarſer Malt and Bread than ours. But, in the Northern Parts, it is much ſown for its hardy Nature, and Growing on poor Land.

The ſeveral Ways of making Barley and fitting it for the Mower. Although Barley roots the ſhalloweſt of any of the white Corn in the Ground,

yet it ſtands the longeſt without Shedding, and is mown by the Scythe and Cradle, Scythe and Bale, or bare Scythe. If by the Scythe and Cradle, the Barley muſt ſtand upright, and then the Tops and Bottoms will lie in fine regular Rows, in the beſt Poſture for Raking up and Cocking, or to bind in Bundles free of Waſte. If by the Scythe and Bale, it is done when the Barley lies more confuſedly, or bent down. Laſtly, if by the bare Scythe, it is when Barley is a great Burthen, and laid, or ſcraled by Winds and Rains. The Firſt is the neateſt and moſt profitable Way; the Second cuts and brings the Barley pretty well together; but the third Way cuts it the worſt and moſt confuſed of all others, becauſe then it will require the moſt Raking, and be moſt liable to ſhed and loſe its Kernels. Two Acres with the Scythe and Cradle is commonly a Day's Mowing for one Man, and the Price from fourteen to eighteen Pence an Acre, according as it is more or leſs in Bulk, or as it ſtands. In Caſe of much Rain after Mowing, the Swarths muſt be turned, to prevent its Spiring; for, if this be to any great Degree, it will not make Malt. A Farmer near me being perſuaded by his Neighbour's Weather-glaſs, to let his Barley lie out longer than he was adviſed to do, it rained for a Week ſucceſſively, which obliged him to turn it thrice in that Time; however, it hindered its Spiring, though it loſt its pale Colour and got a worſe in the Room of it, that reduced it to be not worth more than fourteen Shillings a Quarter in the Market; which the Owner refuſing, he had it made into Malt, and ſold it for four Shillings a Buſhel, for it proved as good as moſt others. After it has lain long enough abroad, for the Weeds to wilk and be thorough dead and dried, it is to be raked up into Cocks, and let to ſtand ſo two or three Days, as the Wheather is more or leſs encouraging.

In

In this Time it will get into a ſmall Sweat or Fermentation, that will help towards mellowing and preparing the Kernels, both for Malting and Seed. Of this Management none are more curious than the *Chelſea* and *Fulham* Men, who, in Caſe their Barley is mown in a very dry hot Time, will ſometimes cock it up in a dewy Morning, on Purpoſe that it may have a little and quicker Sweat in the Field, to preſerve its white Colour the better, and ſoften its Kernel; for too great a Sweat in the Mow is apt to make it reddiſh or black-coloured, and ſometimes give a muſty Smell; and thus their Barley looks white, bites mellow, has a good Body, and ſmells ſweet in the higheſt Perfection that ever I ſaw any. On the Contrary, if the Summer prove wet, and Clover or other Graſs or Weeds grow thick among it (as they too often do) the Barley muſt lie abroad, till, as I ſaid, they be dead dried, elſe it will acquire a red or dark Colour by Mow-burning, which is of ſuch great Prejudice to Barley, that it often hinders ſuch Seed from growing, and then, I am ſure, it will be unfit for Malt. Likewiſe, if Barley is grown in the Field, it loſes ſo much of its farinous vital Property as can never be removed. When either of theſe ill Qualities happen to Barley in any grert Degree, it will be beſt employed in feeding Horſes, Hogs, or Poultry. In 1739, there happened a terrible Fire at *Melburne* in *Hertfordſhire*, occaſioned by inning Barley with Weeds among it, in a very damp Condition, that by Degrees heated into a Fire and did the Damage, while it lay in the Barn.——— The Ground whereon Barley was only harrowed in, being in a large open Field in the Vale of *Aylesbury*, as mentioned in Chapter the , was a blackiſh clayey Loam, which the violent Froſts had ſo much Power of, as to

ſhorten

ſhorten and crumble in a few Nights Time: Here it was, that the Gentleman Owner was wiſely adviſed to harrow in Barley on the Ridge-part of the Half-acre Lands, where the Froſts had moſtly killed the Wheat, and it proved an excellent Frill-crop, but, he being a *Londoner*, would not be adviſed to get it in well; for, at Harveſt, he obliged the Reapers to go in among the Barley, firſt to cut out and bring out the Wheat that grew among it, by which they trod down and ſpoiled great Part of the Barley; whereas, had he mowed down Wheat and Barley together, he might then had one taken from the other, as it lay on the Ground, or inned it as it was altogether, for grinding and making Bread of their Flour, which at this dear Time, as it was mixed, would have fetched four Shillings a Buſhel in our *Hempſtead* Market. Likewiſe, in the ſame Spring, 1739, an old Farmer, near me, finding his Wheat miſſed coming up in the Ridge-part of his two Bout-lands, harrowed in Barley at their Tops, which, after Coming up, dried away. Then he repeated the ſame Operation, but this alſo died after Coming up, which made him repent he did not harrow in Turnep-ſeed inſtead of the Barley. Now, I have related theſe two Caſes, chiefly to ſhew, that the Succeſs of harrowing Barley, on the Ridges of Vale-Lands, was owing to the Fineneſs and Hollowneſs of its black Earth, where hardly a Stone is to be ſeen; but the other being a hard gravelly Loam, lying in a narrow Incloſure in the *Chilturn* Country, the Barley could not take ſufficient Root to bring it to Perfection, for the harder and cloſer the Ground, the leſs liable it is to receive and nouriſh the Seed; and, of all Earths, there is none ſo ſubject to be bound in a hard Body, as Gravels are by Rains, nor has any of the white Grains ſo tender a Root as Barley. But where a fine hollow Vale Earth requires

quires to be ſown with Barley, to ſupply the Loſs of Wheat, ſeemingly killed by extreme Froſts, ſome have refuſed to harrow it in, and only rolled it in; and that, becauſe, in Caſe any Wheat ſhould come up afterwards, it might grow the better among the Barley, for that the Tines of Harrows are apt to kill the Wheat ſo remaining in the Ground. The aforeſaid Gentleman loſt to the Value of twenty Pounds, as it was thought by his Neighbours, by this wrong Management in reaping his Wheat, and not mowing that and the Barley together.——It is a general Way throughout *Hertfordſhire*, and all other Counties that I have been in, to rake and cock up Barley, which we in a looſe Manner carry Home in a Cart or Waggon to ſtack or mow; but this looſe Method is refuſed in *Kent*, where they are celebrated Husbandmen, and where, after their Barley is mowed down, with the Scythe and Cradle, they make Uſe of a Sort of Rake, with five iron or wooden Teeth in it, three of which are ſix Inches long, and two nine Inches long; with this a Man rakes up a Parcel of Barley on each Side of him into a Heap, to be bound up in a Bundle, with ſome of its own Straw, by another Man that follows, and ſo goes on throughout a Field. Theſe Bundles they let lie in ſeveral Heaps to be loaded in Carts or Waggons. Now, for juſtifying this Procedure, they told me, they would wager, that they would carry in a Field of Barley ſooner in this Way than in the looſe common Way; and when they had it in the Barn, they would alſo wager, that a Man could thraſh more in a Day of it, than another could after the uſual looſe Method, becauſe by this Means they could lay all the Barley Ears againſt one another, as we do Wheat-ſheaves. And, as a farther Proof of this, they told me, that one of their Men, having ſome Buſineſs at *Yarmouth*, in *Norfolk*, and being there in Harveſt Time,

Time, taught them the Way of binding up Barley, Oats, Peaſe, and Beans, according to his Country Faſhion, which they ſo approved of, that they have followed this Practice ever ſince. Yet, about *Aſhford*, in *Kent*, they differ from ſome other Places, in the Make of the Barley-rake; for, here, the Handle is five Feet long, with a bent Neck, whoſe Head is two Feet and a half wide, carrying ſeven wooden Teeth in it ſeven Inches long each, which very commodiouſly rakes up the Barley into a Heap. In the wet Summer, 1739, a great deal of Barley was very much damaged that grew among Clover, becauſe the Graſs, by Means of the long continued Rains, grew ſo rampant, as to do the Miſchief, by cauſing the Barley to be inned late, of a blackiſh Colour, and grown in the Ear.

How a Chilturn *Farmer had a poor Crop of Barley by wrong Management.* A two Horſe Farmer ſowed an incloſed *Chilturn* Field with Barley the Beginning of *April*, 1738, on giving his Turnep-ground only one Plowing, in a wettiſh Time; and, though it was dry Weather when he harrowed in his Barley, a great deal of it never came up, as I was an Eye-witneſs of, when I ſaw him roll it on the twenty-ſeventh Day, when it appeared more like a Fallow than a Field of Corn; which made him ſay, he would never ſow Barley there again in the ſame Manner, becauſe ſuch clayey, wet, ſtiff Land will not anſwer the Purpoſe, unleſs it is firſt plowed by a ſtrong Team into a fine Tilth; however, as the Caſe was here, it would have anſwered much better, had he given the Field two Plowings inſtead of one; for, though he might have turned the Sheep-dreſſing in deep the firſt Time of Plowing, the next he would have fetched up the greater Part again. In ſhort, there were ſeveral Opinions about the Loſs of this Field of Barley; ſome ſaid the Froſt took it, juſt as it chipped

chipped or ſprouted, and killed it. Others, that he ploughed this wettiſh Ground too deep, and thereby threw up a poor raw Earth, which cauſed the Barley to die in it.

How another got a rich Crop by right Management. A Gentleman, who occupied a large Farm in *Middleſex*, took my Advice, to ſteep his Barley-ſeed in my Saltpetre-liquor, but loſt his Crop by his Man's plowing the Ground too deep in a wet Time, and the wet Seaſon that followed its Sowing; for hardly any of it came up, which made him plow up all again, and ſow it with freſh Seed on the fifth Day of *May*, 1738. And, in Return, he had ſix Quarters of Barley off each Acre, although it was a ſtiff wettiſh Soil, where he ſeldom or never had more than three Quarters before.

The good and bad Succeſs of ſowing Barley in Autumn. At *Patnel* in *Bedfordſhire*, a Farmer ſowed two Acres of ſandy Ground at *Allhollantide*, and, by Means of a mild Winter that followed, it proved a good Crop, and ſo early ripe, that he got it in before his Wheat. A Gentleman near *Buſhy*, in *Hertfordſhire*, about *Michaelmas* Time, 1737, ſowed two Buſhels and a half of Barley on one Acre, for feeding his Sheep with it as Graſs in the following Spring-ſeaſon; but, finding it then come up thick and freſh, let it ſtand for Crop, and mowed it about *Midſummer* in fine Weather, which ſo improved the Grain, that he ſold it for twenty-five Shillings a Quarter. Yet another, in Hopes of the like Succeſs, and who ſowed his Barley-ſeed in a chalky Soil at *Auberry*, near me, about *Allhollantide* Time, did not fare ſo well; becauſe, the next Spring and Summer, 1738, proving wet and cold, it did not ripen ſooner than what was ſown in *March* or *April*, but he did not ſow Rathripe Barley.

Several Caſes relating to Barley-crops. About the Beginning of *October*, 1739, there was ſeen a great deal of green Barley ſtanding in the North, that in courſe came to little: And I obſerved, that a Neighbour of mine had about half his Barley-crop ripe and half green, while it ſtood on a chalky Soil, that was mowed on the tenth and eleventh Days of *October*, 1740. Sowing *Fulham* Barley forward might, perhaps, have prevented the firſt Loſs, and my ſteeping Receipt the laſt. On the ſixth Day of *October* 1739, Barley was ſold in *Aylesbury* Market for thirty-two Shillings a Quarter, whoſe Buſhel meaſures nine Gallons. At *Charleywood* near *Rickmanſworth*, they ſay, in many other Places, they loſe great Part of their Crops of Barley, by harrowing in the Seed on only one Plowing after Turneps are eaten off; whereas the Farmers hereabouts generally plow their incloſed gravelly Loams, and ſtiff Soils, three Times after Turneps; the firſt Time in Broad-lands, next in Hacks, and then in Broad-lands again: And take great Care to plow ſhallow the firſt Time, next Time a little deeper, next deeper than that, and harrow every Time; by all which, the Sheep-dreſſing is regularly mixed with the Earth, and then the Barley-roots, which but juſt enter the Ground, will grow well in ſuch a looſe Soil.——Indeed, it may happen, by Chance, that, on one Plowing up of a ſtiff Turnep-earth, a good Crop of Barley may be got, as a Neighbour of mine had, who ſowed his Ground on only one Plowing after Turneps, which proved ſo clotty, that he was forced to chop it afterwards with Houghs, and then laid on Horſe-dung all over the Top; about a Week after he rotted it, and the following Seaſon proving very wet, ſo waſhed this Top-dreſſing in, and, by its Cover, ſo hollowed the Ground, as to return him a very plentiful Crop of Barley. A *Chiltern* incloſed Field of four Acres and a half,

half

half Gravel and half Clay, had juſt before the laſt Plowing a great deal of Dung laid on it, that was plowed in; but, the Ground riſing almoſt in whole or flitch Thoroughs, buried the Dung, and thus was the Cauſe of a very thin Crop of Barley; which made the Farmer ſay, he would ever after lay his Dung on the Top after Sowing. Now, how obſtinately ignorant this Farmer was, may appear by his next Neighbour's Management, who every Year, in the ſame Sort of Ground, plows his Dung in for Barley, and commonly has very good Crops; but then he takes Care his Ground is very fine and hollow, and his Dung very ſhort and rotten, when he lays it on, elſe the weak Roots of Barley cannot ſtrike into it, to grow to any Perfection.

Quantity of Barley on one Acre of Ground. Whoever ploughs his Ground often enough, whether it be a gravelly, chalky, or loamy Soil, and dreſſes or manures it well, and ſows it in a dry Seaſon, need not fear, by the Bleſſing of Heaven and theſe Means, ſix, ſeven, or more Quarters from an Acre, if withal he ſteeps his Seed in my Saltpetre-liquor. The like, or near it, may be expected from doing the ſame in my cheap Copperas-liquor. I have known nine Quarters to grow on one Acre throughout a Field of nine Acres. A Marſh-ſoil, in *Kent*, has yielded eleven Quarters off one Acre of Sprat-Barley; and yet in ſome of their Clay-lands in *Middleſex*, they ſeldom get more than two or three Quarters off an Acre, becauſe they ſow the wrong Barley in a wrong Manner, as I intend to ſhew in *March*. In the Year 1737, I had ſeveral Roots of Barley that ſeemed each of them to produce thirty-ſeven Stalks, and their Ears had twenty-eight Kernels each, one with another, in all 1036 Kernels from one Root, partly by Means of my ſteeping Liquor, *&c.*

To mow Barley in a Barn to the greateſt Advantage. Now, take Care to mow your Barley well, elſe it will lie very hollow in a Mow, and then it will not ſweat ſo ſoon nor ſo well, which is one main Point of its Cure; therefore, in large Farms, a Horſe is commonly made Uſe of to tread Mow in a Barn, and even this ſtrong Beaſt finds it hard Work, by being obliged to raiſe his ſinking Feet very high, to get up on new lain Wads; for ſo fatiguing is this Work to him, that he is often made to ſweat much. Thus he is to be continued as long as poſſible, and when he is to be diſcharged, we lead him to the Top of a full Load on the Cart, which, being looſed from the Cart-ropes, he ſlides eaſily down, and drives ſome Barley with him on that which is already on the Floor, beforehand prepared for his Reception; ſometimes he comes down on his Arſe, and ſometimes on his Legs, in any Poſture he ſeldom or never takes Harm. If you do it by Men, four ought to be employed to tread a large Barley-mow, when two will do on an Oat-mow, becauſe Oats are ſo heavy a Grain as to lie cloſe with a little Trouble. We ſay, Oats will mow themſelves.

A Crop of Barley got accidentally among Wheat. At a great Farm near *Great Berkhampſtead* in *Hertfordſhire*, in an incloſed Field, whoſe Soil was a gravelly Loam, a Farmer gave a Barley-ſtubble only one Plowing, and harrowed in Wheat on the ſame. The Conſequence was, that, the Winter 1740, proving a mild one, the Barley, that was ſhed on the Ground took Root, grew up with the Wheat, and kept Company with it till Harveſt, when there appeared all over a twenty Acre Field (as was thought) as much of one as the other. The Barley-Ears were exceeding long, and being ripe with the Wheat, they reaped both together; which anſwered

anſwered very well, for it made very good Bread for Country Families.

CHAP. XIII.

Of Inning Oats.

OF the Crop of Oats in 1740. This Year produced almoſt every where a good Crop of Oats, though moſt of the Summer was dry, becauſe the great Froſt a little before had ſo ſhortened and hollowed the Ground, as gave the Roots an eaſy Reſidence; yet thoſe ſtiff Lands, which were twice plowed for them, bore more Oats than that plowed but once, as is the common Way with the worſer Sort of Huſbandmen; becauſe, if ſtiff Earth be plowed but once, the Weeds generally get up and cripple the Crop.

Of the Dutch, Scotch, *and* Poland *Oats.* There is a *Dutch* Oat that has a thin Skin, a ſhort, plump, white Kernel, makes good Oatmeal, and more than the common black Oat, becauſe of its thin Skin, which gives Room for the more Flour, grows with a reddiſh Stalk when near ripe, and not very tall. It is ſown about *Croyden* in *Surrey*. The *Scotch* white Oat is alſo a good hardy Oat, but, in *Hertfordſhire*, we for the moſt Part ſow the black Oat, which we reckon as the thinneſt Skin, and makes the ſweeteſt Oatmeal. It is allowed by all that a white Oat peels and impoveriſhes the Ground more than a black Oat, although either of them do it ſo much that we are obliged to make a Fallow after them, to recover the Ground, eſpecially after the large *Poland* white Oat.

A particular Way of getting great Crops of Oats. Upon ſome Parts of the Borders of *Suffolk*, next *Eſſex*,

ſex, they dreſs their Loams and Gravels with hardly any Thing elſe but common Stable and Yard Dung, and, after two Plowings, they ſow it with Oats, and get vaſt Crops, that kill the Weeds and hollow the Ground; then, as ſoon as the Oats are mown off and got in, they plow the ſame Land twice in Broad-lands, and afterwards ſow Wheat in four thorough Stitches, without any farther Manure. To account for this Piece of Husbandry, they told me that it is better Dunging for Oats than Wheat, becauſe, by the Dung's lying one Summer in the Ground, it mixes with it in a fine Manner, rots, mellows, and ſo prepares it for ſowing of Wheat, about *Michaelmas*, or in *October*, that the Kernels are not in Danger of being cankered, or ſmutted.

Oat-Crop improved. Where Wheat has been ſown on a Clover-lay, and Oats are to follow as the next Crop, they generally prove to be better; becauſe the old Graſs Turf will be new plowed up for the Oat to grow in, for which Reaſon, many obſerve to give this Sort of Ground but one Plowing in all before it is ſown with Oats.

Froſts improve Grounds for an Oat-Crop. I plowed up a Bean-ſtubble into Broad-Lands, in *November*, 1739, thinking to plow it again, and ſow Wheat on it in *January*, or *February*; but not having an Opportunity, I harrowed in black Oats about the Beginning of *March*, without plowing any more, and had an excellent Crop at Harveſt, becauſe the violent Froſts had ſo crumbled and hollowed the Surface, as to let in the Harrow-tines deep enough to make it fine and cover the Seed.

How ſcattered Oats grew into a fine Crop next Year. A Gentleman plowed up his Oat-ſtubble in *January*, and harrowed in Thetches for feeding his Plough-horſes with them the following Summer: But the ſcattered Oats of the laſt Crop came up ſo thick among them, as tempted the Owner to let

all

all ſtand till Harveſt, and they proved a very great Crop.

The ill Conſequence of ſowing Oats late. A Neighbour of mine ſowed his Oat-ſeed thin and late in a cold, wettiſh, flat Land, which was a ſour Tilth. The Conſequence was, he had no more than two Quarters off one Acre, when his next Neighbour, who ſowed early on the ſame Soil, had four Quarters off an Acre. Sow early and have Corn, ſow late and have Straw.

To alter the Colour of Oats. Sow a grey Oat, let them ſtand till they are full ripe, and they will become blacker. Again, if you ſow a black Oat, and mow them before they are ripe, they will become grey. If you let Oats lie abroad, till they are wetted, it helps to turn the blackiſh Oat blacker.

Oats ſown ten Years together in one Field. A certain obſtinate Yeoman, whoſe *Chilturn* Farm was about an Hundred a Year, ſowed Oats in one of his incloſed Fields, ten Years together, without any Manner of Manure, before he gave the Ground a Fallow or Reſt: And, at laſt, by the Favour of a very kind Summer, he came by the beſt Crop of any.

Quantity of Oats on one Acre. This Grain, if encouraged by a ſufficient Quantity of Dung or other Manure, will return great Quantities at Harveſt. One Acre has produced ten Quarters of white Oats. But, of the black Sort, our uſual Quantity in *Hertfordſhire* is about half ſo much without Dreſſing, for I never knew any Dung for Oats in our Parts; if they did, there would undoubtedly be ſeven or eight Quarters off an Acre of black Oats. An Oat is ſaid to root deeper than a Pea. At *Bragnum*, in *Bedfordſhire*, there is a ſandy Soil, that will not bear good Wheat nor good Barley, only Rye, Turneps, and white Oats; for the Latter,

ter, they generally ſow five Buſhels of Seed on one Acre, becauſe theſe Sorts do not gather; yet, in return, the Farmer generally has nine Quarters of them off an Acre. But black Oats will gather in their Growth, and therefore we ſow three Buſhels, three Buſhels and a half, or four at moſt, on one Acre of Ground; and, when we have five Quarters in Return, we call it a good Crop.

Mowing Oats. In the Vale of *Aylesbury* they always mow them with the Scythe and Bale, whether they ſtand thick or thin, or ever ſo well for mowing. But with us, in the *Chilturn* Country, if the Oats ſtand upright, though ever ſo big and thick, we mow them with the Scythe and Cradle. If they are ſcraled about by their Bigneſs, Winds, or wet Weather, then, indeed, we mow them with the Scythe and Bale. In *Kent*, *Hertfordſhire*, and ſome other Places, when Oats grow on a Lay, or what we call freſh Ground, and are a very great Crop by this or any other Means, we reap them; and, after they have lain ſome Time to dry and mellow on the Ground, we bind them up in Bundles, with the Help of Rakes, like Sheaves of Wheat. But, in *Kent*, they bind Oats almoſt every Year as well as Wheat, Barley, Beans, and Peaſe, for the Corn ſooner dries and thraſhes, and is eaſier loaded and unloaded.

A great Crop of Oats got, though ſown in October. At *Barley-end* Farm in *Bucks*, ſome Years ago, Mr. *Wright*, the then Tenant, took a Fancy to ſow a Field with black Oats in *October*, whoſe Soil was of the chalky Sort. The Neighbours laughed at him, ſaying, they would come to nothing; but it proved otherways, for in this Month the Oats were ripe at the ſame Time Wheat was, and the Crop was prodigious in Quantity; which made the Farmer ſay, if a Man never tries Fancies, he will never find out the right from the wrong Way.

A great

A great Crop of Oats got on a Wheat ſtubble, though ſown in September. In *Chipperfield* Pariſh, a Farmer plowed up a Wheat-ſtubble Field, whoſe Soil was a gravelly Loam, and ſowed it in *September*, only for feeding his Sheep with them as Graſs, and he fed it all the Winter till *March*; then he ſhut up the Field to ſtand till Harveſt for a Crop, and, by thus feeding them with Sheep, the Oats branched and were a great Bulk at Harveſt. Another ſowed white Oats in a ſandy gravelly Soil, about the tenth of *Auguſt*, that was well dreſſed with dung, and began to eat them the firſt Time about *Allhollantide*, and again in *March*, and thus enjoyed a high full Crop of Oats, which he mowed very early in the wet Summer of 1738.

CHAP. XIV.

Of PEASE.

How one Farmer loſt his Crop of Peaſe, and another ſaved one. This I was an Eye-witneſs of. The Father-in-Law ſowed his incloſed, gravelly, loamly Field Broad-caſt with Hog-peaſe, and plowed them in with the pecked Share Two-wheel Plough; which, becauſe he plowed the Ground but once, and a baſhing wet Time ſucceeding, bound the Earth and buried the Peaſe. But the Son-in-Law acted wiſer, for in the ſame Soil, in a Field near his Father's, he likewiſe ſowed his Hog-peaſe in the ſame Manner, but plowed them in with a Foot Broad-ſhared Plough, which covered them ſo ſhallow, as only juſt to cover them. Both which Ways were intended to ſhelter the Peaſe from too much Drought. The Reſult was, that the Father-in-Law loſt his Crop, but the Son-in-Law had a

full one, though both were ſown much about the ſame Time.

How one ſort of Peaſe hit, and another miſſed. There was a gravelly, loamy, incloſed Field, ſown in a random Way with the Maple-Pea, about the twelfth of *April*, and harrowed in on only one Plowing, and, a kind ſeaſon following, three Acres of them yielded near an hundred Buſhels. But ſuch late Sowing of Maple-peaſe is too great a Hazard for a prudent Farmer to run, for thoſe ſorts ſhould be never ſown later than *March*, leſt they run into Straw, and not Corn; as it happened in another Caſe at *Wardſcomb*, near *Ivinghoe*, where a Farmer ſowed ſome grey Horſe-peaſe on the thirtieth of *April*, and had only Straw in Return. Had he ſown blue Peaſe in their Room, or the *Eſſex Rodeing* white Pea, or Beau-dye, or ſome others, it is very likely he might have had a good Crop. The Puffin, the Kid-pea, *&c.* are tender ones, and ſo tender, that, if they go once away, in Clay-ground, by cold Weather, they never recover. But the Horn grey is ſo hardy as to come and go (as we call it) ſeveral Times, and yet be a good Crop at laſt.

Peaſe hurt by the Fly and Slug. 1737 being a dry Summer, the Shrimp or green Fly took the Peaſe, as the black Dolphin, or Collier-fly, did the Beans, and ruined vaſt Quantities. In *April*, 1738, being a wet Seaſon, the Slug took a Field of Hog-peaſe juſt as they ſhot out, and eat them up; for theſe Inſects were ſo thick in this rainy Month, that Pottles of them might be gathered in a little Space of Ground. When the Slug thus eats down the Pea-ſtalks, they ſometimes happen to recover and grow the thicker for it; but then there commonly is a great deal of Haulm and little Corn, becauſe they are obliged to a late Kerming.

Why

Why Peaſe proſper better after Barley than Wheat. Hog-peaſe ſown on a Barley-ſtubble is commonly the ſureſt Crop, becauſe the Land is well dreſſed, and the Barley has not ſo long a Time to feed on the Ground and impoveriſh it as a Wheat-crop has. In *Edgborough* common Fields, in *Bucks*, where the Land is a whitiſh hurlucky Earth, they dare not ſow Hog-peaſe after Wheat; if they do, the Bloſſom generally dies, and the Crop is ſpoiled; but, if they ſow them after Barley, they ſeldom fail, by Reaſon, after a Wheat-crop, this Ground is left ſo hollow, that the Sun gets in and dries them up. It is on this Account that ſeveral Farmers in *Ivingbee* Pariſh are weary of ſowing Peaſe in the ſame Sort of Ground, and therefore of late have ſown Oats inſtead. But this Evil might be remedied, as I am going to ſhew.

Drilling Peaſe produces the beſt Crops. In *Kent*, in particular, Farmers for the moſt Part ſow their Peaſe in Drills, by the Drill-plough, or otherways; which Mode of Sowing, with after Houghings, ſecures them, in a great Meaſure, from the Damage of Droughts, Inſects, and Weeds, when the random ſown Peaſe are deſtroyed by ſome or all of theſe Accidents; and, therefore, thoſe Farmers muſt be very much wanting to their own Intereſt, while they continue ſowing their Peaſe in ſuch hazardous dry Soils, in the old Way of plowing them in; becauſe, after that is done, there is no more Improvement can be added. Whereas, if they were ſown in Drills, at twenty Inches aſunder, and a Horſe-break drawn firſt between the Rows, and the Earth afterwards gathered up cloſe on the Pea-roots, by Hand-houghs, they would have a double Chance of becoming a plentiful Crop. Accordingly, this Way of Sowing is now got into ſuch Reputation for producing great Crops, that ſeveral Farmers

ſow the great blue Union, the *Spaniſh* Merottoes, the *Carolina*, Non-pareils, *&c.* in thoſe Fields where formerly they ſowed only Hog-peaſe; and, by this Drilling Method, they generally ſucceed to Admiration. In *March*, 1742, I drilled Hog-peaſe in one of my Fields, and by a Sort of Manure that I then applied to them, after a particular Manner (which I intend to make known when I write of that Month) I came by a fine Crop.

Peaſe and Horſe-beans ſown together. This is a common Way in *Hertfordſhire*, by ſowing a Mixture of them together in a random Way, and plowing them in; or, by a Man's ſpraining them out of the Hand in Broad or two Bout-lands; or, by ſowing theſe on a rough plowed Ground, and harrowing them in. And this, becauſe if one Sort miſſes, the other may hit.

Peaſe and Oats ſown together. This is called *Bullimon*, and ſown for the ſame Reaſon that Peaſe and Beans are, for, by one's ſhading the other, they become the greater and ſecurer Crop; and it is frequently practiſed in the Weſtern Parts of *Hertfordſhire*, to ſow theſe together, as being eaſily parted by the Sieve; but their Straws may be given together in Racks or Cribs for Horſes or Cows.

Several Ways of Cutting and Inning Pea-Crops. In 1740, the Field Hog-peaſe ran ſo faſt into Pods, that the Bloom was hardly perceived; and, when it does ſo, we ſay the Pea ſteals a Bloom, and then we reckon it a ſure Sign of a plentiful Crop, which accordingly happened, for they corned extraordinary well in moſt Places. In this Month we had the Puffin, *Windſor*, and Horn grey Pea, Poplar, and Maple Hog-peaſe ripe, which are cut ſeveral Ways. In *Hertfordſhire* we do it two Ways; one is by the Pea-hook, which has a five Feet long wooden Handle, with a Cutting-iron made a little circular at its End,

End, about a Foot in Length, and an Inch and a half broad. The other is by the Scythe. If the Peaſe are very thick and long, we hook them; if thin, we mow them. When they are ſown in two Bout-lands, we commonly hook them and not mow them, becauſe it is difficult to mow them, while they are in this Poſture. In *Kent* they make Uſe of two Inſtruments in this Work, called *Hook* and *Hinks*, or *Hook* and *Swipe*, which their Men dexterouſly manage; and, when all is cut down and dried, they make Bands of the ſame, and bind the Peaſe up in Bundles for carrying Home, as in the next Chapter, of *Inning Horſe-beans*, I ſhall farther make appear.

To prevent the Damage of Rains on Peaſe after Cutting. In Caſe great Rains fall after Cutting, the Wads muſt be turned now and then, and thereby you will prevent the Opening of the Pods and Shedding of the Peaſe in a great Meaſure; and this is ſo well obſerved by careful Farmers, that even in wet Time, and when the Rains continue long, they will turn them, becauſe it will keep the very undermoſt Peaſe from opening.

Peaſe got in wet. It is the Opinion of a certain Farmer, that when Peaſe have been ſo wetted in the Field as to ſprout, if they be dried afterwards by fine Weather, they are the ſweeter, and that he has obſerved his Hogs eat them better, and thrive faſter, than when they have eaten them very dry and hard. But then ſuch Peaſe muſt not be inned too damp; if they are, they will mow-burn, or turn mouldy, rotten, and ſtink,

CHAP.

CHAP. XV.

Of BEANS.

OF the Bean-Crop for 1740, *and ſowing Beans and Oats together.* This Summer was ſo dry, after the laſt Winter's great Froſt, from Sowing-Time to the Beginning of *July*, that moſt of the Horſe-bean Bloſſoms were parched up and dropped off, ſo that few podded, which almoſt every-where deprived the Land of full Crops of this Grain, and raiſed the Price of Beans, the Winter following, to above three Shillings a Buſhel. On the Contrary, the Pea-crop flouriſhed as well, and filled the Barns in great Plenty, otherways Beans had been at a prodigious Rate. This Year the Drill-husbandry had much the Advantage of the *Virgilian*, becauſe the Horſe-break and *Dutch* Hough gave the Bean-roots ſuch a Covering as to ſecure them in a fine Manner againſt the Drought, *&c.* This Spring-ſeaſon a Farmer by me plowed up a Piece of old, ſward, ſtiff, wet Ground, and on only one Plowing harrowed in Oats and Beans, which grew into a thick Crop; but the Beans were ſo ſhort and ſmall podded, that they came to little. In another Field he ſowed Peaſe and Beans together; the Peaſe anſwered very well, but the Beans as bad, through the great Dryneſs of the Year. In ſome Seaſons we have, in our *Chilturn* incloſed Fields, very good Crops of Oats and Beans growing together, by firſt plowing in the Horſe-beans; and, about a Week or Fortnight after, we harrow in the Oats upon them; and though it may happen that the Oats be ripe before the Beans, ſo that they be greeniſh at Mowing; yet they ſeldom take Harm, becauſe the Oat-ſtraw, by its dry hollow

low Nature, abſorbs and drinks up the humidity of the Beans.

The Benefit of ſowing Peaſe and Beans together. Theſe if ſown in a rank rich Ground, and a rainy Summer follows, the Beans will be apt to out-run the Pea, and ſmother it; but, if the Pea and the Horſe-bean are ſown together in a poorer Earth, than the Bean will hold the Pea up, and cauſe it to corn the better. The Pea alſo will be ſerviceable to the Bean in ſhading its Roots, and keeping off the Dolphin or Collier-fly, which cannot make its Settlement ſo eaſily when the Pea has twined up to the Top of the Bean-ſtalk, and one Third of Peaſe is ſown with two Thirds of Beans.

Weeding Horſe-beans. When they are about four Inches high in the Vales, they turn their Sheep among their Horſe-beans, and they will eat up the Weeds, and keep the Crop clear of them till Bloſſoming-Time, without doing Harm. It was on the twelfth of *May*, 1739, when they firſt turned their Sheep into their Beans, that grew in the common Fields of *Ayleſbury* Vale, where they always obſerve to do it in a fair Day, elſe the Sheep will be apt to bite off the Bean-heads, and daub and dirty the Graſs and Weeds they feed among. They do vaſt Service in eating up the Curlocks and breaking the Bands of the Hail-weed.

How a Field of Beans was ſpoiled by the Canker-worm. This Field had been a Meadow Time out of Mind, in the Pariſh of *Studham* in *Hertfordſhire*; but, the Graſs decaying on it, the Owner, to recruit it, dunged it well all over, on which enſued ſuch a dry Summer as burnt up the Crop. The next Year he ſowed *London* Coal-aſhes over it, and had a tolerable Return; however, having ſeldom or never had a full Crop of Graſs on this Meadow-ground, he reſolved, as ſoon as a Compoſition was made with the Tytheman of the Pariſh (which was then

then about to be done) to plow it for ſowing Corn; accordingly the Tythe was agreed to be paid in Money, and then he up with this Meadow, and ſowed it with Beans, which were ſo deſtroyed by the Grub and Canker-worm, that at Harveſt there were hardly any Beans; for theſe Inſects, having had a long Series of years to increaſe their Breed undiſturbed, multiplied prodigiouſly. After this he was going to ſow it with Wheat only on one plowing, but was diſſuaded from it, and inſtead thereof plowed it up and harrowed it ſeveral Times, till he got it fine enough to ſow it with Turneps, which he did; and, after they were eaten off, he gave the ſame Ground one Plowing, and harrowed in Barley, and after that Wheat, and had excellent Crops, free from any Damage by the Canker-worm; which by this Time were moſt, or all, deſtroyed by the Plough-ſhare, Hough, and the Tines of Harrows. Thus this Ground, that was freſh and in good Heart, held Plowing and Sowing every Year, and this is the eighth ſucceſſive Crop, 1741; and the Owner thinks to ſow it longer, before he makes a Fallow of it. By this, and many other Examples of Damage, Farmers may learn to prevent the like. A two Shilling Book may ſave a hundred Pounds Loſs.

How Bean-crops have been loſt by wrong Management. A Gentleman, whoſe Farm conſiſted partly of a flat, wet, clayey Loam, loſt ſeveral Crops of Beans, by ſowing them Broad-caſt, and plowing them in, on only one Plowing up a Barley-ſtubble. This made him be at the Charge of chalking the ſame Ground near *Dunſtable* Downs; after this he ſafely plowed in his Horſe-beans, becauſe the Chalk ſo ſhortened and looſened his wet ſtiff Soil, as to let out the Beans very eaſily; for no Grain, of the Field Sort, buries ſo ſoon as Beans, whoſe broad tender Head cannot get above Ground,

if

if the Earth is not in a looſe hollow Condition.— A Farmer, in a *Chilturn* incloſed Field, whoſe Soil was a clayey Gravel, ſowed it with Horſe-beans that he plowed in; but a heavy Shower of Rain following, ſo bound the Surface, that the Beans could not get out, to the Loſs of his Crop.— Another Gentleman muſt needs have his Beans ſoaked firſt in Mudgel-hole, or Dunghil Water, before they were ſowed; but Rains, falling quickly after, burſted them before they could take a regular Root. Thus three Acres of Beans were loſt, when the other half of the ſame Field, which was ſown with dry Beans, was five or ſix Feet high the nineteenth Day of *July*, in the hot wet Summer of 1734.

How a Farmer got a good Crop of Horſe-beans. In a *Chilturn*, gravelly, loamy, incloſed Field, a Farmer ſowed five Buſhels of Seed on an Acre, throughout the Whole, and that by plowing the Beans in as ſhallow as poſſible on a Barley-ſtubble, and none had a better Crop in this Sort of Earth; for, his Ground being of a dry Nature, he was obliged to dreſs it very well for his Barley, which very much helped his Beans; and, by ſowing them thick, their cloſe Standing preſerved a Shade on their Roots, in the drieſt Seaſon, contrary to the Practice of *Ayleſbury* Vale, where their Land being a black marly Loam, if it does not riſe heavy, when they plow in their Bean-ſeed, they commonly miſs of a full Crop, becauſe then the Earth will lie cloſe and cover the Roots well; for a ſmall Froſt ſhatters and looſens this Land in a very little Time, ſo as to give an eaſy free Paſſage to the Heads of the Beans, and cauſe it to lie light about their Roots.

The Benefits of drilling in Horſe-beans, &c. Where Ground will admit of the Drill-huſbandry, it is much the beſt Way to ſow Corn in this Poſture,

by the three Wheel or Pulley-ploughs, or by a Hand-box, or by Hand-houghs making a Drill, or ſome other Way; becauſe nothing can carry ſo true a Depth and Breadth of Earth, as the two firſt Mathematical Inſtruments: I ſay, in this Caſe, it is better than ſetting Beans by a Dibber, becauſe both the Plough and the Hough make the Earth lighter and looſer, than when they are plowed or dibbed in. And, if it ſhould be objected, that the Sun is better kept from drying the Roots by ſetting them, I anſwer, that this is ſupplied by the Horſe-break, or Hand-hough, or both, one after the other, which lays Mould enough on their Roots to anſwer this Purpoſe; and thus the Work is done with leſs Expence and Labour, and in leſs Time, than when Beans are ſet by the Hand, with this Exception, that where the Nature of the Ground is ſo wet, that a Drill cannot conveniently be made, long-ways nor broad-ways, but the Owner is obliged to ſet Beans by the Dibber croſs a Ridge-land, then Setting is to be preferred, as it is done by *Pinnar*, *Rouſeſlip*, and other Places in this Part of *Middleſex*. About *Brackley*, in *Northamptonſhire*, a Man runs a Thorough or Furrow, with the Foot-plough, and another follows with an Inſtrument ſomewhat like a Wheel-barrow, which drops out the Beans at certain Diſtances, that are covered by flinging the next Thorough on them with the Foot-plough; and thus they ſow one Thorough and miſs another. When they are four Inches high, they hough them for the firſt Time, and, when a Foot high, a ſecond Time; and thus get large Crops, where they could not before. About *Prittlewell*, in *Eſſex*, ſome ſow their Horſe-beans Broad-caſt, and harrow or plow them in, and afterwards hough them as we do Turneps; becauſe here they fold no Sheep to eat up the Weeds, which are apt to grow very rampant in

their

their low Grounds near the Marſhes. Some again in theſe Parts ſow Beans in Drills and hand-hough them.

Rolling Bean-ground. In the *Chiltern* Country we commonly roll thoſe Beans that are to be mowed; ſome as ſoon as they are plowed in, others as ſoon as their Heads are all out of the Earth, to cloſe the ground about them, and better ſecure them from the Damage of Droughts, and make it lie even, that the Scythe may work the better. Some harrow them preſently after their Appearance, ſaying it looſens the Earth, lets in Rains, prevents the Growth of Weeds, and, if the Tines ſplit any of their Heads, they will ſpread and grow into the more Stalks.

The Damage of the black Dolphin-fly. In the Summer, 1737, this Fly remained on the Horſe-beans to the laſt, which made the Farmers mow them down, while they were greeniſh; for the longer they ſtood, the worſe they would be, becauſe theſe Inſects had done ſo much Miſchief by the twenty-ſecond of *July*, when they were mown in the Vale of *Aylesbury*, that they were a very poor Crop indeed, for theſe Inſects ſuck out the Virtue of the Beans at the End of their Pods. A Farmer by *Feverſham*, in *Kent*, perceiving the Dolphin-fly had took the Tops of his Bean-ſtalks, juſt as the Beans were podding, ſet his Men to mow them off, and, as the Beans were drilled out of the Hopper of a Plough at twenty Inches aſunder, each Man would mow four Rows at once; which early Management helped him to a prodigious Crop, when his Neighbours had hardly any, who did not the ſame, for theſe Creatures, after they once fall to the Ground, can never riſe again. In *Hertfordſhire*, the ſame Summer, a great many Crops of Beans were ſeized by this Fly; but, as they came on late, they did not do ſo much Harm as if they had

come ſooner. But, if they had, they have no Notion of this cheap effectual Remedy in this nor no other County (as I could hear of) beſides *Kent*. But, of the poiſonous Nature of this Inſect, I ſhall farther write in this Chapter.

Several Ways of cutting down Beans. In *Kent*, a Man cuts them down with two ſhort Inſtruments, called there *Hook* and *Hinks*, or *Hook* and *Swipe*, with which he pulls a Parcel towards him with the left Hand, and cuts or chops them down with the Right, and ſo quick, that ſome will cut an Acre and a half of drilled Beans in a Day. In another Country, if they are ſown Broad-caſt, and ſtand thick and high, they reap them as they do Wheat; but, when the Beans are thin and ſhort, we mow them in *Hertfordſhire*, and ſometimes reap them; and, when very thin indeed, we are forced to pull them up by the Hands. In the Vale of *Aylesbury*, where the beſt of Bean-ground is, they mow all their Beans with the bare Scythe, in *Swarth*, as they call it; that is, they mow their Beans towards the Beans, and each Mower has a Boy to follow him with a Fork to lay them in Wads, in which Poſture they let them lie to wilk and wither. Next, they lay two of theſe Wads in one along the Ridges of their Land, and directly draft, rake, and leaſe all with their own Folks, I mean thoſe of their own Family. When dried, they carry, draft, rake, and leaſe all their Bean Land over again. But, in the dry Summer 1740, they mowed their Beans out in Swarth, becauſe they were ſo ſhort and thin, that they might eaſily do it, this Way; for, when they mow Beans in Swarth, it is, becauſe they are a large Crop, and ſtand leaning inwards, which they are obliged to obſerve; elſe when they mow Beans againſt their Bending, they call it *Throating*, that is, Moving them againſt their Bending, and then it is enough to break the Heart

of

of the Mower, for in this Manner he takes double Pains. In our *Chilturn* Country, when Beans are ſhort, ſeveral mow them with a Scythe and three-ribbed ſtrong Cradle, which ſaves the Charge of a Wadder, cuts a great deal in a Day, and lays them in Rows. Alſo, when they reap Beans, they lay them in regular Swarths, like Wheat, which dry them ſooner, than when mowed confuſedly, and better ſtill, when they are bound up in Sheaves and Bundles, and ſet three or four up againſt one another; and thus the Beans are freed from Weeds, which by Mowing they cannot avoid. In mowing Vale Ridge-Lands, I ſhould have ſaid, if the Mower does not carry the Point of his Scythe downwards, he will ſtrip off great Quantities of Beans.

Quantities of Beans on one Acre. In a gravelly Loam in the *Chilturn*, a wet Summer has produced 260 Pods on ſix Stalks, that grew from one Root; and upon one ſingle Stalk ninety Pods have been found: And from one Acre forty Buſhels of Horſe-beans have been got, which makes ſome of Opinion, that a full Crop of theſe will pay a Farmer as well as a Crop of Wheat, eſpecially where they dung for Beans, and immediately after ſow Wheat on the ſame without Dreſſing, as many do in ſome *Chilturn* Countries, to their great Improvement. My Neighbour having a Field of three Acres to ſow, whoſe Soil was a flat loamy Earth, he ſowed five Buſhels of Beans amongſt Peaſe and Thetches in a very dry Seaſon. The Peaſe and the Thetches miſſed, but the Beans that grew very thin ſtood it, and became ſo well corned, that he had an hundred Buſhels of thraſhed Horſe-beans off theſe three Acres. Another *Chilturn* Farmer had five Quarterns of Beans and Peaſe that grew together off one Acre, which is a good Vale-crop.

Of the poiſonous Nature of the Dolphin or Collier-Fly, or black Bug. This Inſect, by ſome Farmers,

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is called the *Dolphin-fly*, that eats and deſtroys Beans, in their green Pods; by others the *black Bug*; and by the Hop-planters, in *Kent*, the *Collier-fly*. In ſome dry Summers, it is bred in infinite Numbers, and ſo infeſts the Bean-crops, that, in ſome Years, they will ruin Thouſands of Acres, if not prevented in Time by the Remedy I have publiſhed in this Chapter, and another that has been likewiſe tried, and anſwered beyond the Farmer's Expectation, which I intend to make known in a proper Month. In the mean Time I ſhall here obſerve, that the Breed of this Fly or Bug is occaſioned by the Lady-bird, or what we in *Hertfordſhire* call the *golden Bee*, which is bred and brought over by Eaſterly Winds; and, if ſqueeſed between the Fingers, it will blacken them, and is thought to be of a very poiſonous Nature. If a Piece of Bread is rubbed with them, and offered to a Dog, though ever ſo hungry, he will refuſe it. This is contrary to the common Notion, that the Lady-bird Fly is of the ſame cordial Nature of thoſe brought from the *Indies*, that, when here, are called *Cochineal*.

Of weaning Pigs. By the Beginning of this Month, at fartheſt, Pigs ſhould be weaned from the Sow, that they may be ready to go with her into the Stubbles. To do this, at ſix Weeks old, they may be weaned well; firſt ſhut up the Sow for two or three Days, and tar her Dugs, for this will dry away her Milk on a ſudden; then let her out and put up the Pigs as long, then the Sow, and ſo for a Week or ten Days. As this is done in Summer Time, give the Pigs ſome Pollard in Skim-milk, or Whey, or Waſh, and Barley for the firſt Corn, next Peaſe, for Kernel will make them thrive a-pace. It is common for People to buy fat ſuckling Pigs out of Baſkets, as they are ſent in them to Market for ſelling them to Higlers at three Weeks old; and, with careful Management, they may

may make good Hogs, by giving them ſome Milk-Porridge for a Time, then Pollard and Waſh, and Barley, or Peaſe. Some let Pigs run three Months together with the Sow before they wean them. Others, more prudent, will wean them as ſoon as they conveniently can, that the Sow may the ſooner take Boar on the Turn of her Milk, and go on for another Litter of Pigs.

CHAP. XVI.

Of Crops produced by ſowing ſeveral Sorts of Seeds.

OF cutting down and inning Canary ſeed. This Seed, or Grain, growing both in light and ſtiff Lands, is generally ripe in *Auguſt*, and in *Kent* is cut down three ſeveral Ways; one is by the Hook and Hinks, a ſecond by the Sickle or Reaping-hook, and a third by the Scythe as it ſtands. When it is dry enough; they take and bind it up in Sheaves, or Bundles, and, after it has had its due Sweating in the Mow, a Man, if it yields well, will thraſh out three Buſhels in a Day. If the Ground is in good Heart, and a kind Summer follows, one Acre has produced three Seam and a half, or what we call three Quarters and a half. But on a particular Acre there have grown four Quarters, that have been ſold for ten Pounds a Quarter: But ſince it has got cheaper, and now generally ſells for thirty or forty Shillings a Quarter. Its Seed is an excellent Sort for feeding Cage-birds, and making one of the whiteſt and beſt of Oils for the Limner's Uſe. Its Straw is good for Cows, but Sheep will not eat it; for Horſes it is indifferent, and therefore cut it into Chaff. Its Culture

and

and After-management, between Sowing-time and Harveſt, expect in *March*.

Of cutting down and inning Carraway, Coriander and Teaſels. As theſe ſometimes grow together in one Piece of Ground, they are generally ripe in this Month, Reap the Carraway-ſeed and the Coriander, but the Teaſel's prickly Heads ſhould be beforehand made to hang down, by cutting their Stalks at the upper End, with a Knife almoſt half through, that they may ripen and die the ſooner; afterwards their Heads muſt be cut quite off, and their Stalks be pulled up by the Hands; one of theſe Stalks has produced twenty, fifty, or an hundred Teaſel-Heads, as they grow at nine or twelve Feet aſunder. This Vegetable is extraordinary uſeful to the Wool-comber, and great Quantities of their Heads are ſent beyond Sea, as well as to *London* and other Parts. The Carraway is reaped and laid in Handfuls to dry in the Field, and, as it is very prone to ſhed its Seed, they commonly ſpread it on Sail of Barn-cloths, and thraſh it in the Field, as they do Cole-ſeed. The Straw of all theſe is only fit to burn. In 1736, Carraway-ſeed ſold for fourteen Shillings and ſix Pence a hundred Weight. Some Fields, in *Eſſex*, are wholly ſown with Teaſel-ſeed, becauſe in ſeveral Parts of this Country they are much uſed. In *February*, or *March*, expect an Account of their Culture and other Management.

The Cutting and Inning of Flax, with ſeveral uſeful Obſervations on both the Foreign and Home Sorts. Some of the knowing ones have ſo well conſidered the Value of this Commodity, as to ſow it to their great Benefit. Moſt of this Sort of Farmers and Gentlemen live about *Taunton* and *Exeter*, in *Cambridge*, *Worceſter*, and *Warwickſhire*, and about *Maidſtone* in *Kent*. Yet there are vaſt Quantities of this Commodity imported every Year, both in Seed, Flax, and Linnen, *&c.* The *Dutch* is the beſt Sort of Flax, and

is ſometimes ſold at forty-eight Shillings a Hundred rough; dreſſed one Shilling *per* Pound. Fourteen Pound of this is a Stone Weight, which, when paſſed the Hands of a Workman, will produce eight Pound of long Flax for making a Thread for fine Shirts called *Bag-Holland*; and four Pounds of ſhort, that makes, what is called *Garlick Holland*. *Dantzick* Flax is ſometimes ſold for thirty-five Shillings *per* hundred Weight rough; when finely dreſſed for nine or ten Pence *per* Pound, according to its Colour. Its firſt Drawing makes good Shirts and Sheets; its ſecond or ſhort, when dreſſed is ſold at ſix Pence *per* Pound, for ordinary Shirts or Sheets. *Holliday* Flax ſold for thirty Shillings *per* Hundred rough; fine eight Pence *per* Pound; firſt Drawing for fine, the ſecond for coarſe Shirts or Sheets. — *Ruſſia* Flax twenty-five Shillings *per* Hundred rough, ſeven Pence *per* Pound, long and ſhort together, for coarſe Shirts and Sheets. It yields much, one Stone will produce ten Pounds of clean dreſſed Flax that makes a very ſtrong durable Wear.—Bundle Flax, rough, eighteen Shillings a Hundred, ſix Pence a Pound long and ſhort together. This makes coarſe Sheets and Shirts.—*Engliſh* Flax is next to the *Dutch* in Goodneſs; that which grows by *Maidſtone*, in *Kent*, is very like the blue ſilver-coloured *Dutch*, that is reckoned the fineſt of all others whatſoever, and makes a Linnen for Shirts and Sheets as fine as *Holland*. The longeſt beſt *Engliſh* is worth one Shilling *per* Pound clean dreſſed, the Short ſeven Pence.—Fenn Flax, growing in the Iſle of *Ely*, in *Cambridgeſhire*, is next to the *Kentiſh*. The *Warwickſhire* Sort next to that is worth ſometimes forty-eight Shillings a Hundred rough, one Shilling a Pound dreſſed, and ſome coarſer for nine and ten Pence, according to its Colour and Fine-

neſs. Right *Dutch* Flax-ſeed is ſometimes worth twenty Shillings a Buſhel, and is beſt ſown in *England*, and *Engliſh* Flax-ſeed in *Holland*, by Way of Change; as Fen-ſeed is in *Warwick* and *Worceſterſhire*, and theirs in the Fens. The Seed is naturally of a reddiſh Colour. The *Dutch* flat Flax-ſeed is known by a round yellow Seed that comes over among it, and then it is called *Dutch Yellow*. One *Nat. Nicholls*, of *Warwick*, bragged, after he had ſold *Engliſh* for *Dutch* Flax-ſeed, that he did it by ſifting out the yellow and mixing it with *Engliſh* Seed. This yellow Seed grows from a Weed, and ſerves only to know the true *Dutch*, when ſold by an honeſter Man than *Nat. Nicholls*. In laſt Month or this, when a Crop of Flax is ripe, it will appear of a Straw-yellow Colour; but, for a ſurer Knowledge of this, try the Seed-pods, and if they feel hardiſh, crackle on Squeeſing, and the Seed almoſt ready to ſhed, it is then Time to begin pulling it; but never do this in an unripe Condition, for, by ſo doing, ſome have loſt above the Value of half their Crop of Flax, beſides their Seed, for greeniſh or unripe Flax will prove ſo weak as to break in Working, and become Tow inſtead of Flax. Take a Parcel of its Stalks in both Hands, and pull them very gently up; when this is done, ſome lay them in ſmall Heaps on the Ground, with their Heads to the South. Others only in Handfuls, and turn often, for ten Days, a Fortnight, or more, that the Sun and Air may thoroughly dry and wither them. Others tie the Handfuls near their Tops, and ſet up three or four againſt one another, with their Bottoms ſpread out, as we do our reaped Horſe-beans, as the beſt Way of all others; becauſe, by this Poſture, the Rains cannot make any great Lodgment, and that little, which may happen on them, will be ſoon dried away

away by the free Acceſs the Air has to all their Parts. When they are thorough dry, carry all into the Barn. For curing and making Flax ready for ſpinning into Thread, it requires a large Account, at preſent obſerve the following Receipt as publiſhed by the *Dublin* Society.

How to improve Flax and Hemp, after it is pulled, to the greateſt Advantage by a moſt cheap Liquor. The moſt coarſe *Ruſſia* brown Flax, coarſe ſtubborn *Iriſh* Flax, and Hemp itſelf receive by the following Method an aſtoniſhing Improvement, both in Fineneſs and Colour. The Workman is not confined to any particular Sort or Kind of Lees. Aſhes of any Vegetable anſwer by enlarging the Proportion. The Society have tried thoſe of Aſh, Thorn, and Furz, with equal Succeſs. Caſſop makes the ſtrongeſt Lee or Ley; half a Pound is the proper Quantity of it to ſix Quarts of Water, and of the weakeſt Aſhes one Pound. The Time of boiling the Flax, or Hemp, in this Lee, cannot be properly limited. The Society boiled ſome two Hours, and it proved ſofter, finer, and brighter, without loſing its Strength.

How to increaſe a Crop of Clover-Seed after a new Method, without Coſt, to a double Advantage, and Cutting and Inning it. In the laſt Month Clover-ſeed is ſometimes ripe for Cutting, and ſometimes in this. Where the firſt Crop has been mowed off, the Seed will be the later ripe; but, where it has been fed off, it will be the ſooner ripe; which latter Way is certainly much the beſt, becauſe there have many brave Crops been greatly damaged and ſpoiled by being expoſed to a late Ripeneſs, when the Nights have got long, the Days ſhort, and Rains have frequently fell; and, of what ill Conſequence wet Weather is to this Seed, the Farmers in general have wofully experienced for theſe two or three

Years paſt, when there has been hardly any right good Seed to be bought for Money, till 1741, when Clover-Seed had the drieſt fineſt Time that could be wiſhed for, and then it ſold for three Pence a Pound, inſtead of ſix Pence, that was the Price of it a Year or two before. Now to have a Crop of Clover-Seed the ſooner ripe, whether the firſt Crop be eaten or mown off, and to bring it under ſeveral other Advantages; when the Heads of Clover are all got red, fill the Bellies of ſome Sheep or Lambs very well the ſame Day, before they are to be turned into a Field ſowed for Clover-Seed, leſt their Hunger provoke them to feed on the ſeedy Heads, and then they will only bite off the ſpreading Side-leaves of the Stalks, and nothing elſe, except Weeds. Thus by putting in Sheep or Lambs, now and then, into ſuch a Field, and by their eating up the Leaves off the Clover and Weeds, the ſeedling Heads and their Seeds will grow the larger, be more in Number, ripe ſooner, and dry faſter afterwards, both in the Field and in the Barn: And yet, theſe are not all the Benefits ariſing by this Piece of new Huſbandry; for ſuch ſeedy Clover-heads, when they are well got in, will thraſh eaſier, and by this Means a Man has thraſhed out a Buſhel in one Day; whereas, in the common Management of Clover-Seed without feeding the Crop firſt with Sheep or Lambs, a Peck or leſs a Day has been accounted a good Day's Work for one Man. There is alſo another Miſtake in cutting Clover-ſeed Heads, which moſt do in any Condition with the bare Scythe; but this is wrong, when the Clover-Seed ſtands high enough to imploy the Scythe and Cradle; becauſe the firſt cuts many of their Heads in two, and leaves them in a confuſed Manner on the Ground, by which a great Waſte commonly enſues;

enſues; but, when the Scythe and Cradle are uſed in mowing them, then the Heads are all cut and laid in a regular even Form, for their more expeditious Turning and Drying, free of that Waſte that accompanies the bare Scythe. But as I have wrote more of this Matter in the Months of *April*, *May*, and *June*, for making Clover-hay, and curing its ſeedy Heads in the Field, and afterwards how to improve them in the Barn to the higheſt and beſt Degree, according to the Practice of myſelf and the moſt acute Farmers, I refer my Reader to a Peruſal of them, for his farther Information.

Of Turneps and the excellent Uſe of the Sheim or Turnep Hough-plough. In this Month ſow Turnep-ſeed for the laſt Attempt in Tilth Grounds, and this, becauſe, if they miſs taking this Time, the ſame Ground ſhould be ſown with Rape, or Cole, or with Rye, or with Wheat; for, if Tilth-grounds were to be ſown in next Month with Turnep-ſeed, they would hardly anſwer, on Account of the ſmall Roots that ſuch late Sowing commonly is the Means of producing; but ſowing Tilths in this Month is often done, after their miſſing once or twice before; for Turneps have ſeveral Enemies, as Flies, Slugs, Caterpillars, Anbury, Droughts, and Froſts, and though Turneps have failed before, yet they frequently take in this Month, and become a good Crop, becauſe their Arch-enemy, the Fly, is ſaid to grow blind in *Auguſt*, and uncapable of doing that Miſchief they uſually do; and the more, becauſe the froſty Nights that generally begin in this Month, kill or diſable them and the Caterpillars. But, if they ſtand, as I ſaid, they muſt not be expected to root ſo large as the more forward ones, becauſe cold Weather ſtunts them, eſpecially when they grow on a poor Soil, that

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ſometimes only returns Leaves. Indeed, where Ground is full of Dung, the light red, or purple, hardy ſort of Turnep has often ſucceeded and appled (as we call it) into large Roots. Waſps alſo are great Deſtroyers of the Fly, inſomuch that the Butcher is generally glad when Waſps come, that they may kill their more Arch-Enemy, the Blow-fly, as well as others of their Tribe. But the dry Summer, 1741, gave a Sight of the fleweſt Waſps I ever knew, becauſe the preceeding Winter and Spring were ſo ſeverely long cold, as to freeze moſt of them to death; and even Adders, as well as many other Inſects, ſhared the ſame Fate. Thoſe Turneps, ſown in laſt Month, now may be fit to hough, and if they grow thick and are not houghed, they will burn, ſtunt, and ſpoil. But, as it generally happens, Men in this buſy Harveſt-Month have not Time to do any Thing elſe but get in Corn, the excellent Sheim or triangular Hough-plough may be employed, with great Eaſe and Expedition, in the ſaving of many Crops of young Turneps from Ruin. Its Make I have already particularly deſcribed, in my former Works, and therefore ſhall but ſay here, that ſeven of the fifteen little Houghs muſt be taken off, and eight in the Row behind only left on, which, by the Help of a little Wheel of about a Foot Diameter ſhod round with Iron, and fixed in the Forepart of this Inſtrument inſtead of a Foot, may be drawn by Horſes in Length, and, in a regular Manner, made ſo to thin the Turneps that ſtand too thick as to prevent their Stunting and Burning, till Hands be more at Leiſure to hough them; or, indeed, if they are not houghed any more, they may chance, in good Ground, to become a good Crop. But, Hand-houghing afterwards muſt certainly be the ſureſt Way. It is Pity this Machine is not more uſed.

How

How Turneps have been ſpoiled by the Grub or Canker-worm, Caterpillar, Anbury, &c. One of my Neighbours, ſeeing the large Leaves of ſeveral Turneps look yellow, ſearched about their Roots, to find out the Cauſe, and, to his great Surprize, diſcovered, they had been eaten by the Grub or Canker-worm in the Month of *Auguſt*, 1741, in an incloſed Field, whoſe Soil was a gravelly Loam, after the Turneps had been houghed a conſiderable Time.—The Caterpillar alſo is no leſs dangerous in doing Miſchief to young Turneps above, as the Grub is under Ground; and therefore, in my former Works, I have diſcovered ſeveral ſure Ways of preventing their Rapine. But the froſty Nights, that commonly happen about *Allhallantide*, make ſure Work, and generally put a Stop to their devouring Progreſs, by killing them. I have ſuffered much by theſe Inſects, before I knew how to manage them.—Next is the Anbury, which overtakes Turneps ſometimes, after they have got large Roots, but moſt of all in ſandy Soils. In *Suffolk* and *Norfolk*, the Turnep Diſeaſe is very common, in dry Summers eſpecially, and deſtroys great Numbers of Acres of them in a Year, by Worms growing in little Bulbs or Knobs on the Turneps, and eating into their Hearts: But, as I have in other Months enlarged on this Malady, I forbear writing more of it here. Now you that have Leiſure, plow up your Wheat, Barley, Bean, or Pea-ſtubbles (for Oat-ſtubbles are commonly too poor for this Buſineſs) and, on one Plowing, harrow in three Pounds of Turnep-ſeed on one Acre. By doing ſo in this Month, you may chance to have a noble Crop, that will come in latterly for ſucceeding the forward ſown Crops, which may be full or more ſerviceable than them, for ſupplying your fatting Sheep, or ſuckling Ewes

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and Lambs, or milch Cows, or carrying on the Fatting of Oxen, or *Welch*, or *Scotch* Runts, as they do in the Eaſtern Counties before-mentioned, and ſerve them as an excellent Food in the Months of *January*, *February*, *March*, and *April*, when no other of the green Sort can be got: And, to keep ſuch Crops of young Turneps from their pernicious Enemy, the Slug, which in this and next Month are commonly very numerous and powerful, I intend to make known my great and invaluable Secret, how to prevent their Miſchief, even in all rainy Seaſons for a little Charge, and, by this Means, ſave Thouſands of Acres that otherwiſe would be deſtroyed.

Obſervations on the Growth of Turneps in the Year 1740. The Year 1740 was attended with Diverſity of Weathers, and that with very different Effects relating to Turnep-crops. Thoſe Turneps, ſown in *May*, eſcaped the Fly-rapine, becauſe the Weather, though very dry, was ſo long cold, that it prevented their Breed. But thoſe Turneps, ſown in *June*, were moſt of them devoured by this Inſect, becauſe the Seaſon proved dry and hot; but thoſe ſown in *July* and the Beginning of *Auguſt*, grew, flouriſhed well, and remained in a ſafe Condition from the Fly, by Reaſon of the frequent Rains that fell from about the Thirteenth of that Month to the Middle of *Auguſt*; nor did the Slug do hardly any Damage throughout the whole Summer, as being, in the Opinion of many, moſt of them deſtroyed by the late long hard Froſts, which continued moſt Part of the Winter and Spring; and alſo by the ſucceeding dry Weather, which likewiſe was ſo long dry, that many Farmers plowed up their Ground ſown with Turnep-ſeed, in Deſpair of a Crop, as thinking they would never come. For my own Part, I can ſay, I had

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a Field sowed with them, that lay near six Weeks before I perceived any appear, though I prepared it for their Reception by good Plowings and Dressing it first all over with the Fold. Indeed, I have heard of a Farmer, who formerly sowed a Field with Turnep-seed, which not coming up to his Expectation, he plowed it again, and then sowed it with Wheat, and the following Year with Oats, and in the third, or Fallow Year, the same Turnep-seed grew to his great Surprize. However, it is generally allowed, that Turnep-seed was never known, in the Memory of Man, to lie so long in the Ground all the Country over, before they came up, as they did this Year.

To sow Turneps on French *Buck or Branch-wheat.* It is, I must confess, what I never practised, nor ever saw done, but my Reason tells me it may be done with Success; for, as this is the usual Time for the Blooming of *French* Wheat, on one Plowing up and Harrowing of the Ground, three Pounds of Turnep-seed may be sown on an Acre of it, and harrowed in; for here, if the Crop was thick and long enough, the Ground will have its full Dressing, lie very hollow, and be in a fine Condition, which are all Requisites for obtaining a good Crop of Turneps.

Of Rape and Cole-seed, and sowing it on French *Wheat.* As I have already observed, on Account of Turnep-seed, that there may be a considerable Improvement made by sowing it on *French* Wheat, plowed first in; I say the same in Respect to Rape or Cole-seed, which, in like Manner, may be harrowed in to answer the like profitable Purpose; for here are both Dressing and a deep Earth, made so by the hollow Lying of the *French* Wheat, which Rapes or Coleworts in particular require beyond most other feeding Vegetables, because of the great Suction of their large Roots and Heads.

To ſow Rape or Cole-ſeed on Stubbles. If the Harveſt is got in forward, it will be extraordinary good Huſbandry to plow up your Wheat-ſtitches, and immediately harrow them down plain and even, for ſowing and harrowing in half a Peck of Rape-ſeed, and harrowing it in once or twice in a Place. The like off Barley, Bean, or Pea-ſtubble, where the Ground is in good Heart, and of the ſtiff Sort; for here the Rapes, in a kind Seaſon, may grow near two Feet high in large Stalks, and many broad Leaves, ſomewhat like a Savoy, and become the beſt of Food for ſuckling Ewes and milch Cows, or for fatting Weathers, or Lambs, and Oxen, who with all, by their Dung and Urine, greatly enrich the Ground, and prepare it for ſowing it with Turneps, Barley, Wheat, or other Seeds hereafter. Thus, if a Crop of Rapes or Turneps take after one another, a Tenant may enjoy the Profit of two extraordinary Crops in one Year, and this in the Fallow-ſeaſon, without breaking through the Covenants of his Leaſe, which commonly oblige him to let the Land lie fallow every third Year; for theſe Crops, if they are not drawn, are reckoned Improvers and not Peelers of the Ground. And though many Vale-grounds have richer Earth than *Chilturn* commonly have, yet few of the former can have this Plant growing in them, becauſe of their marly clayey Nature, and low wet Situation, which hinder Beaſts from feeding on them; and Drawing them to be fed, in another Place, would be worſe ſtill, for Reaſons I have formerly advanced as to Turneps; but, in an incloſed *Chilturn* Field, this is of late much put in Practice, even the Sowing of this Seed in gravelly Loams with great Succeſs, if they are well dunged, and ſo in our common Fields where all Parties agree and do the

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same; and, if they are houghed, they will be better, but many Farmers let them grow as they are sown, and never hough. And indeed, I cannot but lament the Neglect of Propagating this Field as well as Garden-herb, because of its great Use in Frosts and Snows, which hurt not these like other Vegetables, but rather better them, by sweetening their Leaves and Stalks, which again enrich the Ground to a very great Degree for After-uses.

To sow Rape or Cole-seed on three and four Bout and Vale Ridge-lands, and on the Mud of Rivers and Ponds. On the second Day of *August*, 1740, a Gentleman had a large Pond emptied, and the Mud or Sullidge thereof spread round about it, for I believe a Pole wide. When it got dry enough, a Man with a Garden-rake raked in Cole-seed all over it, and in a Month's Time, by the frequent Showers that fell in that Time, the young Coleworts covered all the Ground with their Heads, and by *Michaelmas* following they were Knee-high, and served as an excellent alternate Food for his Turkies, Geese, *Muscovy* and other Ducks, that were kept about the Place. Cole-seed likewise may be very well sown in this Month on all Tilth-grounds, before prepared for it by several Plowings; and this either in Broad, or in two, three, four, or more Bout-lands, which in many Places; in the latter Way, must be done, else the Situation may lie too flat and watery. Also in Ridge-vale half and whole Acre Lands, that are not too much of a clayey or marly Nature, this Seed may be sown to answer with great Success, as well as in Fenny and Marsh Lands. But, of Rape and Cole-seed, I have wrote more largely in last Month.

To ſow French *Wheat for a Winter-crop.* In a ſandy, chalky, gravelly, dry Loam, or in any other light dry Land, if it be in good Heart, whether it be a Tilth or Stubble, you may, in this Month, harrow in one or two Buſhels of *French* Wheat-ſeed on one Acre; and, if the Weather prove kind, it may get a good Head by *Allhallows-tide*, and ſerve to feed your Horſes, Cows, Sheep, or Oxen with; or, you may plow it then in to rot and dreſs the Ground, for ſowing Barley, Beans, Peaſe, Oats, or Turneps, the following Spring-ſeaſon to a great Advantage.

How to get a Crop of Clover, by ſowing the Seed in this Month among Peaſe. A Farmer having a large Crop of Peaſe ready to cut with the long *Hertfordſhire* Hook, as they grew promiſcuouſly; he went over the whole Field, and ſowed about twelve Pounds of Clover-ſeed in this Month on each Acre, and, by the Hookers treading it in with their Feet as they worked along, the Ground, which became very hollow by the great Cover of the Crop of Peaſe, received the Seed ſo well, that, next Summer, there appeared a famous Crop of Clover; for here the Seed is pretty ſafe from both Slug and Fly at this Time of the Year, in ſuch a trodden Piece of Corn-land.

How a Crop of Turneps has been got by ſowing Seed among Peaſe. A Farmer having a large Crop of Hog-peaſe growing in the random Way, and ready to cut by the Pea-hook, went over all the Peaſe, ſowing two Pounds of Turnep-ſeed on each Acre, and, by treading the Seed in by the Hooker's Feet, the Ground yielded a good Winter's Crop of Turneps, which were very much improved by two Houghings.—Theſe two Ways are of vaſt Conſequence to *Chilturn* Farmers in particular, becauſe, if their Crops of Clover and Turneps

neps have miſſed taking the Ground in the former Part of the Year, here very likely they may be recovered in a moſt profitable Manner. A Method that was never yet wrote of. This is what I practiſe myſelf.

How to get a Crop of Turneps on a Pea or Bean Land, or after Wheat, Barley, &c. It is generally practiſed of late Years, as ſoon as Harveſt is over, to give a Wheat, Barley, Bean, or Pea-ſtubble, one Plowing, and harrow in Turnep-ſeed. If the Ground lie in Stitches, it muſt be plowed plain, and if the Land was dunged before it was thus plowed, it would be the better for the Crop. Others will give ſuch a Soil two Plowings, if it is of the ſtiff Sort, and then harrow in Turnep-ſeed; but, where a Crop of Corn has grown thick, there the Ground will be certainly hollow, and very ready on only one Plowing to receive the Seed and return a full Crop, eſpecially if the Fold is directly run over the Field as ſoon as it is ſown with Turnep-ſeed.

Some uſeful Items relating to Turnep-boughing. In this Month it frequently happens that Turneps become ready to hough that were ſown in *July*, which, though very inconvenient to the Farmer in Harveſt-Time, muſt be done in ſome Degree, elſe they ſpoil. It was my Caſe, in 1742, to be under this Neceſſity, and ſo it was many hundreds more, becauſe ſhowery Weather prevented our Sowing for ſome Time; therefore moſt employed their Harrows to thin and keep them from ſetting, till a more leiſure Time. Now, the Excellency, of the Hough-plough or Harrow was never, I believe, more valuable than this Year, for theſe thinned them ſo quick, that many Acres were ſaved by this very Means from being ſpoiled, till the Hand-hough could be employed,

ed, and then the Hougher will hough them with almoſt half Trouble; and the better, if the Ground was plowed deep the laſt Time, for he can make two Strokes as eaſy then as he could one in a harder Soil, that was plowed ſhallow; alſo, when Ground is plowed deep, a Turnep will thrive as faſt again as in ſhallow plowed hard Ground; yet, for all this, Turneps may be houghed ill, if the Hougher *ſubs* them, as we call it, *i. e.* if he houghs them ſo ſhallow as to only cut off the Heads, and leave the Roots in the Ground, for then they will grow again, eſpecially if the Weather is any thing wet.

CHAP. XVII.

Of Plowings performed in this Month.

IN this Month there are ſeveral Sorts of Plowings to be performed previous to the ſowing of Wheat, *&c.* which, as it is the principal Art of a Farmer to do, in a ſeaſonable and in a Workmanlike Manner, according to the Nature of his Ground; I ſhall here write on ſeveral Methods that have been made Uſe of in different Soils and Countries.

To get ſtiff Land into a fine Tilth. In our incloſed Fields in ſome Parts of *Hertfordſhire*, where the Soil is of the ſtiff Sort, we moſt diligently endeavour to reduce them into a fine Tilth as ſoon as poſſible; and one of the beſt Ways, for ſo doing, is to lay ſuch Ground up in ſharp ſingle Bouts; therefore, that Land, which is laid up in Bouts in *June* or laſt Month, ſhould be bouted off the laſt Bouts ſome Time in this, and ſo remain

main in the ſame Poſture till *September* or *October*, then to be bouted down, harrowed plain, plowed, and ſowed with Wheat.

Second Way. That Land, which has been twice bouted up before this Month, ſhould be back-bouted or what we call *thoroughed down*, the latter End of this, and lie in this Poſture till it is harrowed plain and plowed for ſowing Wheat in *September*.

Third Way. That Land, which lay in Hacks laſt Month, in this ſhould be firſt harrowed plain, and hacked again croſs the laſt Way, and lie thus for ſowing Wheat in either of the following two Months.

Fourth Way. Where Land has been plowed fine before, for ſowing Wheat in Broad-lands, the ſame may be reduced finer ſtill by drawing the Sheim or triangular Hough-plough over it all, with its fifteen little Houghs or Feet fixed in it, and do ſeveral Acres in one Day, which will prove almoſt as well as if plowed.

How a Farmer almoſt loſt a Crop of Wheat by too late plowing his Ground. Near me lived a Farmer who rented about an hundred Acres of Land, which gave him an Opportunity to ſow about thirty of them with Wheat every Year. Now this Man neglected Fallowing one of his Fields of ten Acres, till after Harveſt, that he deſigned to ſow with Wheat, becauſe, the ſame being a Lay of Clover, he was covetous of enjoying the Graſs as long as he could for his Sheep; therefore it was the latter End of this Month before he fallowed or plowed this Field the firſt time, which he let lie three Weeks, and then harrowed it plain, cart-dunged it, and hacked or plowed it acroſs the Caſt-way, in order to harrow and plow it a third Time for ſowing Wheat in the ſame.

ſame. The Reſult of this late Miſmanagement was, that, for Want of a ſufficient Time for the Upper-ſpit of Mould to lie and rot, it turned up every Time with a ſour twitchy Earth, in which, after the Grain was ſown in it, the Twitch or Couch-graſs and other Weeds grew, and in Time almoſt killed the Wheat; for, as I have heretofore obſerved, there is no forcing a Tilth, and, for this Reaſon, he that will not give a ſtiff Earth due Time to lie, as well as plowing and harrowing it, muſt not expect it to be brought into a fine ſweet Tilth for ſowing Wheat at a proper Seaſon; therefore, ſince he had neglected plowing this Field earlier, it had certainly been the Farmer's beſt Way to have harrowed in his Seed on only one Plowing of ſuch a Clover-lay, and immediately to have lain his Cart-dung all over the ſame.

How another Farmer got his Clover-ground into a fine Tilth by a more early Plowing of it. The dry Summer, 1740, a Farmer having a Clover-field under this Graſs for near two Years, to enjoy it as long as he well could; it was on the firſt of *July* before he plowed it up into Broad-lands, and, on the twenty-eighth following, he harrowed it plain, and hacked or plowed it aſkew, and, in this Month, he harrowed it and bouted it aſkew. By which Management he got it into ſuch a Tilth, as gave him an Aſſurance it would be truly fine when he plowed it next Time for ſowing Wheat in two Bout-lands. Now, why this Farmer was obliged to plow this narrow, incloſed, dry, loamy Field aſkew, was, becauſe he had not Room to plow it directly acroſs; and, though he might be ſo fortunate, by theſe ſeveral Plowings, to get ſuch a Clover-lay into a fine Tilth againſt Wheat-Seed-time; yet it was three to one Odds (in my Opinion)

pion) of his Miſcarriage; for, if the Seaſon had been a very wet one, he could not have done it, for then the Twitch-graſs, the new Shoots of the old Clover-roots, and other Weeds very likely would have deſtroyed, perhaps, half his Crop; ſo that ſuch late Plowing up of a Clover-lay is ſuch a Hazard, that a prudent Farmer will not run, that can conveniently do otherways. Had it been my Caſe, rather than begin plowing this Field ſo late, as the Beginning of *July*, I would have fed it on till the Beginning of *September*, and then on only one Plowing harrowed in my Wheat-ſeed, and dunged, or folded on the Top of it.

How a Farmer was right in plowing up a Field late the firſt Time. Another Farmer, on the fifth of this Month, was bouting up his loamy, gravelly, incloſed Field, that he had fallowed in Broad-lands but ſix Weeks before. This laſt Operation was performed croſs the firſt Way, and the Reaſon, why he fallowed it ſo late, was, becauſe he fed his Folding-ſheep on the ſame, as having no other Food for them than what they could get in the fallow Fields; and this he ventured with the greater Aſſurance, as truſting to the Shortneſs of his Earth, and the Benefit of a kind dry Seaſon, for bringing it into a fine Tilth. Here, indeed, I muſt own it to be good Huſbandry, not to plow a gravelly Soil too early nor too often, leſt the little looſe Mould, that lies between the ſmall Stones, be waſhed too much away by the Rains, for then the Crop will certainly complain; and it is for this very Reaſon, that one Plowing in Gravels goes as far as two or three in Clays and other ſtiff Earths.

The Benefit of plowing deep the laſt Time but one. This Item is well known to the ſkilful *Chilturn*

Farmer, as a Matter of great Importance towards obtaining a plentiful Crop of Wheat or Rye; for, by plowing your Tilth-ground deep the laſt Time before Sowing, as is commonly done by a true Workman in this Month, you may eaſily turn up a fine looſe Earth, either into Ridges or Broad-lands, at Sowing-time. On the Contrary, if the Ground (the ſtiff Sort eſpecially) was to be plowed ſhallow this Time, and you are obliged to ſow your Wheat in Ridges, or two Bout-lands, next Time, you have Reaſon to fear, that a hard, ſour Thorough or Furrow, perhaps, of twitchy grazy Earth will be turned up, to the Deſtruction of the Wheat or Rye-crop.

A Field of light Loam got into a fine Tilth. It was in a large incloſed Field of a loamy Chalk, that a Farmer was at work on the Firſt of this Month, with two Foot-ploughs, that had pecked Shares, and drawn by three Horſes each; by which Method he ſaved one Horſe in each Team, that in the Wheel-plough muſt have been employed here. This was his firſt Stirre, when he plowed it into Broad-lands, croſs the laſt Broad-lands; in which Poſture it was to remain till it was harrowed, plowed, and ſown with Wheat or Rye, in Broad-lands, in next Month.

Plowing and ſowing Land between Hatfield *and* Hertford. Between *Hatfield* and *Hertford* Town, and in ſeveral other Parts of *Hertfordſhire*, in ſome of their Common-field, wet, loamy, and gravelly Grounds, they ſow their Wheat in two and three Bout-lands; but their Barley, Oats, Peaſe, and Beans in ſix Bout-lands. In the Spring-time, when they are to ſow any of theſe Lent-grains, they plow three of their two Bout-lands into one ſix Bout-land, by beginning in the Middle of one of them with the Foot-plough. But ſometimes

times they perform this Operation with the Wheel-Fallow-plough, and then they plow theſe three narrow Lands into one Broad-land of ten or eleven Thoroughs. And when in *April* they fallow theſe ſix Bout or Broad-lands for Wheat, they plow all as level as they can; then, at the next Plowing or firſt Stirre, they plow it again croſs-ways in the ſame Manner, to lie and ſweeten againſt the Time they plow and ſow Wheat in ſmall Ridge-lands; at which Time their common Way is to draw out theſe Stitches with a Foot-plough, and bent up with the Two-wheel Wheat Stitch-plough. When they ſow Barley, Oats, Peaſe, or Beans, on only one Plowing, they ſay here, it is, becauſe their Ground is wettiſh, and therefore obliges them to plow it all one Way at this Time of the Year; for, if they plowed it twice in the ſame Poſture, it would add to the Sourneſs of their Land, by being forced to turn one wet Clot upon another.

Plowing ſandy Grounds. In *Suffolk*, *Norfolk*, and many other Places where their Sands are heavy enough to admit of it, they plow their Grounds in Bouts, Hacks, and Broad-lands, commonly with their Jockey Two-wheel Plough; but where they are too light to lie in Ridge-poſtures, they plow generally in Broad-lands altogether from firſt to laſt.

Plowing Lands in Middleſex. In their incloſed, wet, clayey, and loamy, arable Lands, about *Kingsbury*, *Neeſden*, and *Acton*, in *Middleſex*, they fallow in three, four, ſix, or eight Bout-lands, and make their firſt Stirre in the ſame Manner; but, at the next Operation, ſome, after the Ground is levelled by their heavy great Harrow, plow acroſs into Broad-lands, and afterwards they plow acroſs them again, either into three, four,

or ſix Bout-lands, as their Ground will admit of. But where their Land is deep enough to admit of ſingle Bouting, and ſuch Plowing was done twice together, that is, by plowing the Bouts off the Bouts; I ſay, ſuch an Operation would in the beſt Manner of all others enter the Ground deep enough, to deſtroy their grand Enemy the common Thiſtle, which infeſts this Sort of Land more than any other Weed, and oftentimes brings them under great Expence to cut them out from among their Corn. This Mode of Plowing likewiſe fines and ſweetens their ſtiff Soils in a moſt exquiſite Manner; and when they have lain a ſufficient Time in this Poſture, by being harrowed down plain, the ſame Ground may with their Swing-plough be plowed and ſowed with Wheat in three, four, or ſix Bout-lands, according to the Cuſtom of their Country. In my laſt Book for *July*, I have recommended the Two-wheel Wood-Chip-Plough; which, I am ſure, may be employed in many Places in *Middleſex*, where it is not too wet, for making theſe ſingle Bouts, and which would anſwer their Purpoſe extreme well, as I have there more particularly explained; for, in theſe clayey ſtiff Soils, their greateſt Difficulty is, to get them into a timely, ſweet, fine Tilth, againſt Wheat, or Barley-ſeaſon, free of Couch or Twitch-graſs, Thiſtles, or other Weeds, and this plowing in ſingle Bouts is the moſt ready Way to do it. But, if a Farmer goes out of his old Road or Method of Farming, it may be wondered at; though the *Eſſex* Men, at laſt, have very much of late left off the Uſe of their Foot-ploughs about *Chelmsford*, for the Two-wheel Jockey-ploughs, which they find in their drier Lands to anſwer much better than the Foot-ploughs, that

that they have plowed only with for Time out of Mind before.

Plowing Lands in Vale and Chilturn. In the Vale Half-acre, or Acre Ridge-lands, they ſeldom give them above three Plowings for Wheat, unleſs ☉ there be an extraordinary Occaſion. If four, they fallow in *April*, make their firſt Stirre in *June*, a ſecond in *Auguſt*, and plow and ſow their Wheat in *September* or *October*, by plowing all one Way with their Foot-plough, either by ridging up or caſting down each Time.

How to plow in French *Wheat for improving a Crop of natural Wheat or Rye.* This good Piece of Huſbandry may be performed to make it anſwer very profitable Ends on ſeveral Accounts: One whereof take as follows, *viz.* In *Norfolk* I ſaw this done the latter End of this Month, where, when a Crop of *French* Wheat was juſt in Bloom, they with one Foot-plough plowed it in; and, with another, that directly followed, they turned up a ſandy Mould on the firſt Layer, and made the whole Field appear in one even Surface of ſuch fine Earth. On this they forthwith ſowed two Buſhels of Rye on every Acre, and harrowed it in. The ſame might be done with common natural Wheat, if the Soil is proper for it, and many plow in *French* or Buck-Wheat for the ſame Purpoſe of nouriſhing a common Wheat-crop.

Plowing in green Thetches for improving a Crop of Wheat or Rye. This is alſo a Vegetable that may be made to produce ſeveral good Effects towards increaſing great Crops of Wheat or Rye. Some manage it this Way: They turn either their Horſes, or Cows, or both into the Field, that they may eat the Heads of the Thetches; and, after they have cropped the upper Part a little

off

off, they plow the reſt in, this Month, to lie and rot two or three Weeks, preparatory for harrowing in common Wheat or Rye over the ſame in *September*. Thus, by ſowing Thetches thick (for they ought to be ſo in particular for this Purpoſe) they will ſhade the Ground, and their Roots thrive very faſt in the drieſt and hotteſt Seaſons, and rather enrich than impoveriſh the Earth they grow in, but more ſo, when plowed in.

Plowing in Clover for nouriſhing a Wheat-crop. After the firſt Crop is either mowed or eat off, let the ſecond be plowed in this Month, but be ſure ſuffer no Cattle to eat any of this; and, after it has lain two, or three, or four Weeks to rot, in *September* harrow in common Wheat, and, if your Clover grows thick and high, it will wonderfully enrich poor Gravels, or other hungry Soils. I know a Farmer, when he has a mind to plow Clover in as a Dreſſing, he lays on it in the firſt Place, ſeveral Loads of fine Chalk, that he got ſhoaled by Froſt the foregoing Winter. When this is done, he lays on twenty Loads of Dung on an Acre, and plows all in together; by this he has enjoyed vaſt Crops of Wheat.

CHAP. XVIII.

Of the Generoſity of a Gentleman Farmer.

AN Account of a Gentleman Farmer who aſſiſted his Neighbours in Diſtreſs. Now is the Time for you Men of Ability to ſecure to yourſelves the Bleſſings of Heaven in your Field, and in your Houſe, on your Corn and on your Cattle, and all

all that you have, by assisting your indigent, necessitous Neighbours in Harvest time, who, perhaps, for Want of Hands, are backward in reaping or mowing their Corn. A Cut for a few Hours only, with many Hands, may chance to save great Part of a Crop, which, for want of them, may be overtaken by heavy Rains and spoiled. This is an excellent Piece of Charity, because it is not only a Benefit to the poor Tenant, but also to the Commonwealth in general, and is what oftentimes may be done by many great Farmers and Gentlemen, without any Prejudice to themselves; for, as they have their full Number of Hands, they in Course get down their Wheat in a little Time, and then one Day can seldom break any Squares, if they will be so good as to lend their Hands to their necessitous Neighbours to get theirs down also, while their own Shocks of Wheat stand to dry, and the Kernels harden, for they have generally some Time allowed them for this Purpose. It was these Considerations that so influenced a worthy Gentleman, whose Farm was about two-hundred Pounds a Year, lying not a great Way off St. *Alban*'s, that, as soon as he got his own Wheat down, he sent ten Men about the Neighbourhood to help those that were most behind. The first was a Widow Farmer, who had but four Men in all; these, with them, soon cut all her Wheat down; then the fourteen Men went to the next, and served him so, and afterwards to a third, and did likewise, and all this of his own free Will, without putting his Neighbours to a Farthing Charge for the Favour. This noble Action is opposite to the common but wrong Saying, *Every one for himself, and God for us all*; it is right when it can be said, *One for another, and God for us all*; Man was not made

made for himſelf. But the true Saying is ſo rarely put in Practice, that I know not one, beſides this worthy Gentleman, that acts, in this Reſpect, ſo well the good Neighbour.

CHAP. XIX.

To fat COWS.

TO *fat Cows.* The Beginning of this Month we dry thoſe Cows we deſign to fat. There are two Ways made Uſe of for this Purpoſe at *Gaddeſden*; one is, to ſend ſuch dried Cows about *Lammas* into *Aylesbury* Vale at one Shilling or fifteen Pence a Week, where they graze in their rich Meadow-grounds till *Allhallantide*, or longer; and, if they are not fat for the Butcher by that Time, we ſtall them at Home, and feed them at Rack and Manger, as I am going to ſhew in another Caſe. Thoſe Farmers who have a Quantity of fine upland Meadow-ground as well as plowed Ground, and where there is enough Aftermeath and other Proviſion, they feed ſuch dry Cows altogether at Home, as long as their natural or artificial Graſſes laſt; and then take them into an Houſe, and feed them only with Turneps and Hay; or, with Barley-meal mixed with Chaff and Oats, and good Hay beſides; or, with Barley juſt broke, Oats, and *French* Wheat mixed together, and good Hay; or, with Bran and ſlit Beans, and good Hay. And this they do till *Chriſtmas*, or till *Lady-Day*, and then ſell them to the Butcher, ſometimes to a conſiderable Profit, and ſometimes not, according as the Beaſt thrives faſt or ſlow. As to the Way of drying Milch-

Milch-cows for Fatting, I have publiſhed ſeveral Ways of doing it in my former Works.

CHAP. XX.

Of HOPS.

ACCIDENTS happening to Hops in this Month. On the twenty-third Day of this Month, 1737, the firſt Hops were brought and ſold in *London* for ſix Pounds a hundred Weight. The Reaſon was, becauſe ſuch a Storm happened on the third of *Auguſt*, as blew down great Numbers of Poles, and did vaſt Damage to Hop-plantations, which obliged them to gather this Hopping Commodity ſooner than otherways they would have done.——The Collier large Fly is thought to breed from Honey, Dews, Fogs, and Cob-webs, firſt in Lice, which, if not timely waſhed away by Rains, will eat and ſhrivel up the Leaves, and then they turn into this black Fly, that eats and poiſons the Hops, Others think they are blown by the Lady-bird Fly, or *golden Bee*, as ſome call it.—The next is the green Fly, which ſeldom or never comes till this Month. This firſt feeds on the Leaves, in which they eat Holes, and then they prey on the green Hops.——Another Inſect is the large brown Bug, which ſettles and keeps to the Hop-leaves, but is thought to do little or no Harm. A Hop-gatherer took one of theſe, and kept it in a Box with a Hop-leaf in it, and in nine Days after it became a Butter-fly with golden Wings. This Bug is ſometimes ſeen with a few white Spots on its Back, and ſome Years with golden Spots; if the latter, it is ſaid,

that Hops will be of a golden Price; if the former, a ſilver Price. One of the laſt Accidents is the Mould, which has employed the Study of many to account for; it begins at the Bottom of the Hop-ſtalk, and eats into it and conſumes it by little and little; when this Malady is perceived, as ſoon they can, they gather the Hops, before they dwindle too much away. The Summer, 1740, was a dry and cold one; but this Month, being attended with great and frequent Rains, bred the Mould to a great Degree, inſomuch that ſeveral Hop-planters ſaid they would not beſtow the Charge of gathering them, did they not foreſee thoſe that were left would fetch a good Price; and ſo they did, for the new ones were ſo few and bad, that made the old ones of laſt Year ſell for nine Pounds a Hundred. One Hop-farmer threw ſome powdered Lime on ſome Hops to try whether it would not prevent the Mould, but it burnt them up. The loweſt Grounds were this Year moſt infected with the Mould, which ſhews it to be cauſed by the Vapour or Fog ariſing out of them; and the more when ſuch Hop-grounds are dreſſed with Dungs, that conſequently make ſuch Vapours the more pernicious, for it is Mould that is thought to breed Snakes in the Dunghils, artificial Muſhroons, and ſeveral other Things. They dung very much at *Canterbury*, and are apt to over-pole; and Over-poling is worſe than Under-poling, becauſe it weakens the Roots of the Hops, for ſuch Length of the Pole draws the Vine too much. About *Maidſtone* they do not pole ſo high as at *Canterbury*. But when there is a right Length of Pole and Vine, in this Month (if the Weather is too dry) make a Hole in the Middle of each Hop-hill and pour a Pale of Water by Degrees into it; then cover all with Parings of Earth, to keep the Part moiſt

moiſt while it is ſo. This do, if Occaſion be, twice in this Month, for this good Piece of Huſbandry will cauſe the Vines to grow into large Branches, run quickly out of Bloſſom into the biggeſt ſized Hops, and thereby be the leſs expoſed to the Damage of Blights and Infects; becauſe both Bloſſom and Hops will be the better enabled to reſiſt their poiſonous Feeding, and become a great Crop, when other Plantations are ruined by too much Drought, becauſe Water is the Food of Plants, and, where there is a Want of its timely Nouriſhment, the Vegetable muſt in Courſe ſuffer. It is true, that, about the latter Part of *July*, Hops are in Bell or Bloſſom, and begin early in this Month to turn into Hops, ſo that at *Bartholomew*, or thereabouts, they are ſometimes fit for Pulling. Accordingly, the Hop-gatherers before, or about the Middle of this Month, come into *Kent*, *Suſſex*, and *Surry*, from *London*, and many other Parts, in great Numbers, to be ready for working, in Caſe of Storms or other Accidents: And here ſome, that have large Plantations, build Huts or Sheds for lodging theſe People on Straw, that is furniſhed to them on Purpoſe by the Owner, that a ſufficient Number of Hands may lodge by each Bin, and be always in the greater Readineſs to proceed on their daily Labours of gathering Hops. But, as *September* is the chief Seaſon for picking, and drying Hops, I ſhall leave the reſt of this Subject for my writing on it in next Month.

CHAP. XXI.

Of the Parſnip-Apple.

THE Excellency of the Parſnip-Apple for Farmers Uſes. I never ſaw this Apple grow any where elſe than in the Weſtern Parts of *Hertfordſhire*, where it annually yields a well ſized and moſt ſerviceable pleaſant Apple for eating raw, baked, or boiled: And as it is a Summer-fruit, always ripe in this Month, it may be made into a pleaſant ſmall Cyder, which will become drinkable in a Fortnight's Time, beſides an agreeable Pome-pirk. This Tree, as if it was bleſſed above others, grows into a very large Body and Head on our clayey Loams, and, wherever it [illegible], it is generally bigger than others in its Neighbourhood; and is ſuch a Friend to the Farmers in particular, that its Fruit is always fit to gather in Harveſt-time, which gives our Country Houſe-wives an Opportunity of diſplaying their Skill in making them into Pyes, Puddings, Dumplins, and baking them in Pots. It is likewiſe ſuch a Friend to the Working-man, that it ſerves to cool his Mouth and quench his Drought, when eat raw, for they ſeldom are without ſome of them in their Pockets; for, in ſhort, in ſome Degree, they ſupply Bread, and Meat, and Drink, and not without good Reaſon, for, in any Shape of Dreſſing, they are next to a Sweet-meat or Deſert, by their delicious dulco-acid Taſte and Flavour. In fine, all Farmers, of what Kind or Country ſoever, ought to plant and enjoy the Benefit of this unparallelled Tree. I have had ſometimes above thirty Buſhels off one of theſe Trees, and ſeldom leſs than twenty, though they conſtantly

conſtantly bear every Year; but they will not keep above one Month after Gathering; however, they laſt us all the Harveſt-time, and ſo rejoice the Hearts of our Workmen, that they work the more vigorous for enjoying this Apple in Paſties or in Pome-pirk, which they generally prefer to any of the beſt ſmall Beer; and, when they can have the Parſnip-apple coddled and eaten with Milk, Sugar, and Bread, they think it a delicate Supper. In the next Month I intend to give another Account of a moſt uſeful early Pear, that is likewiſe ſerviceable to Farmers.

CHAP. XXII.

Of Feeding Stubble-Fields.

FEEDING Stubble-grounds with Beaſts and Poultry. Now turn your Cows and Hogs into your incloſed Stubble-fields as the firſt Cattle proper for this Purpoſe, or, as ſome call them, into *Gratons* and *Eddiſhes*; for the Cows will eat up the green Weeds, or thoſe that have been cut and left behind, and the Graſs on Baulks. The Hogs alſo will eat up the ſcattered Corn, which otherways may fall to the Share of wild Fowls, if you have not Turkies, Geeſe, or Ducks to turn in of your own; and for this Purpoſe this laſt Sort will anſwer to great Profit, becauſe they will feed after the Hog, and pick up thoſe Kernels which they left behind. On this Account I knew a Parſon in the Vale of *Aylesbury* act wiſer than all the Farmers in his Pariſh, for, though he occupied not twenty Acres of Ground, he kept near half a hundred Turkies, which in Harveſt-time he employed

ed a Boy by the Week to look after, and drive them on the Grounds of his Neighbours, to pick up the looſe Beans and other Corn that was left behind on their Ridge-lands in their open Fields; and the Number of this large Flock of Turkies cleared almoſt all the Ground they went over, even to the Prejudice of the Farmers Hogs, who were deprived of their Share by theſe winged diligent Gleaners, who fell to work in many Places, preſently after the Corn was carried off; for hardly any of the Farmers keep theſe tame Birds, becauſe they think their Bellies too large for their Barn-doors, and their Rambling no Ways agreeable to their near Fields of Corn. Next, turn in your Horſes in the Room of the Cows, for, after the Cows have eaten the foggy Graſs, which the Horſes would not ſo well do, they ſhould be turned into a freſh Field, while the Horſes, who bite cloſer than they, will eat up their Leavings; and ſo on Field after Field, while there are Graſs and Corn left for Horſes, Cows, Swine, or Poultry. But it is certain that Geeſe or Turkies are of great Service to both *Chilturn* and Vale Farmers, becauſe of their driving to Diſtances, clearing the Ground of ſhed Corn, and fattening in a little Time; and, I ſhould have ſaid, in devouring and clearing the Field of Slugs, and other pernicious Inſects, that at this Time of the Year breed and increaſe in vaſt Multitudes. Thus, Horſes, with a little Matter of Corn, will plow and cart, Cows milk well, Geeſe fat for Market, young Hogs be made ready to kill as Porkers, and old ones half forwarded for Baconers. And, I hope, that excellent great Bird, the Buſtard, which in my former Works I have wrote ſo largely of, will in Time be bred by Farmers as a common Yard-Fowl, and ſo tame, as to be drove in Flocks to

our

our Stubble-fields, as our Turkies are now, ſince the Buſtard is deemed a wild Turkey; and then they may anſwer to as much Profit as the Farmer's Flock of Turkies did, that throve ſo well on his Stubbles, by being drove into them every Morning, under the Care of a Boy, as made him ſay, they paid him as well as a Flock of Sheep: As many, if not moſt, of the Farmers in the Counties of *Suffolk* and *Norfolk*, every Year, experience, where, in their ſandy Farms eſpecially, vaſt Numbers are kept to feed on their Barley in Yards and in their Stables, to a conſiderable Advantage; for *London* has a greater Supply of Geeſe and Turkies from theſe two Counties, than from any other two, or all in the Kingdom.

How to ſecure Peaſe, Beans, or other Corn-ſtacks, as they are making, from Rains. Now a great Cloth, of twelve Yards ſquare, made of old Sails, is of exquiſite Service, for covering your Stacks, Reeks, or Mows of Corn, as they are making, if there is Danger of Rains, as it often happens; ſo that, before they can be finiſhed, the Farmer may perhaps receive vaſt Damage, which may be prevented by firſt leaving a riſing Heap in the Middle of the Stack, and then putting over this Cloth. I knew one Gentleman at the Charge of buying new *Ruſſia* or *Dutch* Cloth, at one Shilling a Yard, ſuch as a Fourth Rate Man of War uſes for its Sails, for this Purpoſe.

How to get a Crop of Weld the next Summer. Weld-ſeed may be ſown with good Succeſs in this Month, by plowing up a Barley, Bean, Pea, or Oat-ſtubble, and harrowing in half a Peck of this Seed, which will take the Ground ſufficiently to preſerve it againſt Froſts, if they are not too violent and laſting; ſo that next Summer you may expect a Crop of this profitable Vegetable, provided

vided the Seed be ſown in a Chalk, Gravel, or other light dry Ground. But the Way I have in laſt Month wrote of, to improve this Seed among ſome others, in my Opinion, is much the better Method.

Dreſſing Ground with French *Wheat.* About *Ham*, in *Eſſex*, and many other Places, they mow their *French* Wheat about half Way of the Stalk, and then plow that and its Stubble in together to lie and rot, till the ſame Ground is plowed a ſecond Time, before natural Wheat is ſown in it. This firſt Mowing is generally done the Beginning of this Month, and is an excellent Improvement for all Gravels in particular, for harrowing in common Wheat on the ſame in *September*.

How to prepare a ruſty wet Piece of Land for ſowing it with Lucern. A Gentleman, to improve a Piece of Ground, plowed it ſeveral Times, till he got it into a tolerable Fineneſs; but, to make a thorough Tilth, he in this Month had it ſet all over with Savory Plants, in order for houghing the Earth about them, to kill intirely the Roots of Ruſhes, and Twitch, or Couch-graſs, for ſowing the ſame with Lucern-ſeed, in Drills, in *March* following; and it anſwered the Deſign, till, in about two or three Years Time, it was perceived that the Spring-water from a Gravel was ſo raw and ſharp, as to feed upon and deſtroy the Roots of the Lucern; elſe it is an excellent Way to improve ſuch Ground, for Lucern will very much thrive in a boggy Soil where the Bottom and Top of it are ſuitable.

CHAP.

CHAP. XXIII.

Of BEES.

THE Nature and Improvement of Bees. The very wet Year, 1735, was ſo long cold, that many, who had ſix or ſeven Hives, had but one or two left, becauſe their Honey was exhauſted, before the Bees could fly abroad; for a mild, calm, ſhowering Seaſon, produces good and early Swarms, while a cold, dry, and windy Spring, is the Cauſe of few and backward Swarms that Year. Likewiſe in the great froſty Winter 1739, and Spring 1740, there were many Stocks of Bees killed by the Weather's continuing long ſeverely cold, which proved fatal to Thouſands of Hives; yet, by the mild Winter, and hot dry Summer following, thoſe, that were left, increaſed ſo faſt, and in ſuch Abundance, that their Hives were many of them filled with Honey and Wax in Weeks Time, ſo that the beſt Virgin-honey ſold with us for under five Pence a Pound; and, as a Hive of Bees may weigh from forty, to a greater Number of Pounds Weight, one may be worth ten or more Shillings, for ſo numerous and nimble are theſe Inſects at their Work, that it is reported, a Honey-comb of a Foot long, and ſix Inches broad, has been made in two Days.

Full fifteen-thouſand Bees one Hive ſupplies,
That try with Novice-wings each Year the Skies:
And what, I know, incredible will ſeem,
They're all the Off-ſpring of one fertile Queen.
This Truth not ev'n the Mantuan *Poet knew,*
Who ſearch'd with piercing Eyes all Nature thro'.

Four Days inanimate the Eggs remain,
And then begin the vital Pow'r to gain;
In a Worm's Shape the Bee firſt ſtrikes the Eyes,
And, in that Form, four Days ſucceſſive lies,
While milky Juice the Embryo's Food ſupplies.
In the ninth Day a perfect Bee appears,
And Nature on its Feet the Inſect rears;
Two little fluttering Wings adorn each Side,
And ſoon it ſprightly ſhines with gloſſy Pride.
Theſe, free from Envy, by their Labours ſtrive,
Who ſhall enrich the moſt the common Hive.

DINSDALE.

In this Month we kill our Bees and take out their Honey and Wax; if it is an old Stock, it is commonly of two Years Standing, and ſometimes, but rarely, three, becauſe then the Honey is apt to grow candied, or what we call *Bread-combed*, and then, perhaps, it is in a great Meaſure ſpoiled; therefore, thoſe Bees that ſwarmed, the Year before, we take up now, and then it is called *Stock-honey*, which is not ſo good as Virgin-honey, or that which is taken out of the Hive the ſame Year it is put in. Stock-honey is commonly ſold for Two pence a Quart leſs than Virgin-honey, and yet, at the ſame time, is perhaps worſe by four Pence or more. Virgin-honey is known by its whitiſh, hard, curdling Nature, and pure, ſweet, pleaſant Taſte; Stock-honey, by its ſoft, flaſhy, mealy Nature, and leſs delicate luſcious Taſte; yet Stock-honey is as good as Virgin-honey for many coarſe Uſes, and reckoned, when ſold, at four Pence a Pound, much cheaper than Sugar at that Price, for ſweetening and preſerving Elder, and other artificial Wines. Three Pounds Weight of Honey, is allowed to fill a quart Meaſure, and accordingly we buy it by the Quart and Pint earthen

earthen Pot. By theſe two Sorts, a knaviſh Perſon has an Opportunity to adulterate the purer Virgin-honey, by mixing Stock with it, and ſelling it all for Virgin. Others mix Wheat-flour with it, to make it weigh or meaſure the more, but this Fraud you may diſcover by the following Experiment:

To know good Honey from bad. If you melt a little of it, and it appears tranſparent fine, it is neat; but, if a Foulneſs remains at Bottom, it is mixed with Flour, or ſome other Ingredient.

Of driving Bees. There are different Ways invented and publiſhed by ſeveral Authors for improving Bees by driving them. One ſays, in *September*, or any Time after they have done breeding (elſe the Honey will be corrupted by the Shaddens in the Combs) place the Hive you intend to take away, with the Bottom upwards in the Evening between three or four Stakes, and ſet the Hive you intend to drive the Bees into, over the ſame; then directly bind their Rims about with a Towel, and clap the under Hive with your Hands; let them remain together till Morning, and then clap your Hands about the Hive again to frighten all the Bees into the upper one, which take away, and turn its Bottom downwards on a Stool, to lie a little hollow at preſent, for the more free Paſſage in and out of the Bees, who will all take to the remaining Hive. This Way (he ſays) may appear ſomething troubleſome to the Unexperienced, yet beneficial in ſuch Caſes, where you have a great Stock of Honey and few Bees in one Hive, and a ſmall Stock of Honey and Bees in another; by which Means you may ſave the Lives of moſt of your Bees, who will gladly exchange their hungry Habitation for a more plentiful one. Others, ſays

this Author, have adviſed to make Bee-hives to place one over another, that, when the Bees have filled one, they may fall to work and fill the next alſo, and ſo on. Thus, ſays he, you may enjoy the Honey of a full Hive, by leaving an empty one in its Place.

A ſecond Way. Another Author ſays, that it is beſt keeping Bees in Box-hives, becauſe, by a Pannel of Glaſs fixed on the Back of it, one may ſee when the Bees want Room, and then place an empty Box-hive under ſuch a full one: This done, the tin Plate, that ſlides in a Groove to open at Top, and ſhut at Pleaſure, muſt be drawn back, for the Bees to deſcend into the lower Hive, which will ſoon be full, if the Seaſon is in their Favour. When both Box-hives are full, ſpread a Sheet and faſten one Part of it cloſe about the lower Hive's Mouth, and the other Part to wooden Pins drove into the Ground, ſo that it may be ſpread even and tight, for the Bees to walk eaſily out on it. Then, about three or four a Clock in the Afternoon, of a hot calm Day, when the Bees are at work in the lower Box-hive, puſh at once the tin Plate into its uſual Place, to keep the Bees from going any more into the upper one, which, being turned Bottom upwards, and covered with a Cloth, muſt be carried away, in all Haſte, to a Place where the Bees cannot come at it; then you may take out its Honey, and the Bees in the lower Hive will, after Walking about on the Sheet ſome Time, take to the remaining Hive, and ſtore it with Honey and Wax; and, if another Hive is put under it, as before, about three Days afterwards, the Bees, perhaps, may fill that in a little Time, if they have a ſeaſonable Opportunity, and lay in ſuch a Store for their Winter-food, as not

to

to want Feeding, which is generally the Caſe of weak Stocks in a long cold Time.

A third Way of driving Bees, as done by a Country Dame. When a Hive of Bees will not ſwarm in the ſecond Year, then in *June* (for ſhe waits no longer) ſhe takes their Hive in an Evening, and turns the Bottom of it upwards, on which ſhe immediately puts an empty one, and ties a Towel about their Rims; when this is done, ſhe claps her Hands about the lower one, to make the Bees get into the upper Hive, for this they commonly do in about three or four Hours Time; then ſhe takes the upper Hive, and claps its Bottom on the Stool, and the Work is done.——— By this Management ſhe enjoyed the old Stock of Honey, and obliged the Bees to work and get more for their Winter-ſubſiſtence, which, if the Weather is kind, they will ſufficiently do: And thus a Hive of Honey and Wax is got, and yet the ſame Bees are preſerved to do farther Service; which is a very profitable Way, where a Perſon has but few Hives, and is deſirous to increaſe them with all Speed, as the Caſe was with this Woman, according to the following Account:

How Bees were deſtroyed by Mice. Mice are terrible Enemies to Bees, inſomuch that, when they can get into them, they will deſtroy all their Meat and ſtarve them. In the late hard Froſt of 1740, the above-mentioned Woman, for preſerving her Bees againſt the Severity of exceſſive Cold, put Parcels of Straw over her Hives, which indeed would have anſwered her End, had it not been for Mice. But theſe Vermin ſoon took Shelter in it, by making them a warm Straw Habitation, which again ſoon inclined them to lay Siege to the Hives; and, when they had made a Breach, they entered it, and ground the Combs

in

in ſuch a Manner, that two out of her three Hives were intirely demoliſhed of their Honey: Upon this ſhe took away the Straw, and became a better Manager afterwards; for, having but Part of one Hive of Bees left, ſhe drove them in the Manner I have laſt deſcribed, and by that Means recruited her Stock ſo well, that this Year, 1742, ſhe has three Hives again.—— However, in Caſe Mice are too buſy about Hives, they are eaſily deſtroyed by good Cats or Traps.

How to preſerve Bees from Birds, Hornets, and Waſps. Be ſure to ſtop your Straw-hives well round their Bottoms with Clay or wet Aſhes, or with a Mixture of both; and, if you find Hornets or Waſps ply much about your Hives, put ſome Sugar and Water into Glaſſes, Vials, or Pots, and ſet them near the Place. This will tempt them to enjoy the ſweet Liquor, and drown themſelves, or at leaſt be ſo diſabled, that you may eaſily kill them. Yet this common Method is not always made Uſe of, for ſome make a few Holes in a little Piece of Horn, and put it before the Tee-hole that the Bees may have Air, and at the ſame Time be kept ſecure from the Tom-tit, Hornet, and Waſp, for a Day or two, till the firſt is catched in a Trap, and the others beat away from the Place.

How Bees are killed, and to take and cure their Wax and Honey. As to the Killing of Bees, it is certainly a moſt ancient Cuſtom, in order directly to enjoy their Honey and Wax. But, as ſuch Uſage of Bees may ſeem harſh and cruel to ſome People, I ſhall here recite what Mr. *Worlige* ſays in Juſtification of it:

—— 'I judge,

——— 'I judge, ſays he, it is the moſt pru-
'dential Way to have in your Apiary a ſuffi-
'cient Stock of Bees kept for Breeding and
'Swarming, and another Stock kept in large
'Glaſs Hives, for the raiſing of great Quanti-
'ties of Honey, which they will much better do
'in thoſe Hives; and I ſee no Reaſon why we
'ſhould judge it a greater Piece of Cruelty or
'Inhumanity, to take away the Lives of theſe
'Creatures (who have ſo ſhort and inſenſible a
'Life, and die ſo eaſily) for their Honey, than
'to take away the Lives of any other Animals
'to feed on their Carcaſſes; which is daily done,
'and that with very high Degrees of Torture:
'Neither can it be any Loſs to the Bee-Maſ-
'ter, who has an annual Supply by his Swarm-
'ing-ſtocks kept for that Purpoſe; as the great
'Flocks of Weathers are yearly ſupplied from the
'Flocks of Ewes, and the large and vaſt Fat-
'tening-ponds of Carps from the leſſer Breeding-
'ponds.'

Here he ſtops, and ſays, 'For the Trying of
'Honey, I leave to the Experienced;' which is leaving us in the Dark, as to one of the chiefeſt Branches of this Art. Therefore, to ſupply this Defect, I ſhall here preſent you with the common Way of doing it, as it is yearly practiſed by Country-Dames: In this Month we make a Match of ſome Linnen, and dip it in melted Brimſtone; then, lighting and laying it in a Hole made on Purpoſe in the Ground in an Evening, we put a Hive of Bees over it, and it preſently ſmothers and kills them. Then we take out the Combs, and ſlit them as thin as poſſible, and lay them in a Hair-ſieve, where they generally lie two Days for draining out their Honey.

ney. When this is done, we put the Combs into an earthen Cullender, placed hollow on an earthen Pan, and then into an Oven, as ſoon as the Bread is drawn, which being ſtopped in all Night, the Honey and Wax, remaining in them, will, for the moſt Part, run out. Thus we commonly get more Honey and Wax from a Hive or Stock of two Years old, than from a Swarm of the ſame Years. At laſt, we ſell the Wax and Combs of a Hive to the Bee-comb Man, for one Shilling, or under, that comes about for the ſame Purpoſe; but the Honey the Owner keeps for his own Uſe, being what we call *Oven Honey*, and the coarſeſt of all others, is, therefore, not worth Selling,

Remarks on Bee-Authors, and how they manage the Driving of Bees at Gaddeſden. On theſe Accounts I am provoked to obſerve, that there are two Things which have long proved fatal to the improving of many Matters in Huſbandry: One is the Unexperience of Authors; the other, the Delivering of their Directions in ſuch an ambiguous Stile, that the Vulgar cannot comprehend the Scope of the Subject; and, if they know but ſome and not all, it happens in many Things to cauſe a total Miſcarriage. One of their learned Pens carries on a Pupil to the Edge of a Concluſion of the Bee-ſtory, and then leaves him to find it out himſelf, how to kill Bees, take out their Honey and Wax, and cure them for Sale. Is not this enough to diſcourage a Perſon's making a Beginning? Another, in the above Account of driving Bees out of one Hive into another, and keeping off a Communication of them by the tin Plate, for increaſing Quantities of Honey, and yet preſerving the Lives of the Bees, ſays, it is to be done when the Hives are full. This may be

early

early or late; if late, in *Auguſt*, or longer, an ignorant Perſon may be led to attempt this Driving then, which is too late for Bees to get a Sufficiency of Honey for their Winter-ſtore, inſtead of preſerving a Stock of Bees, they may be ſtarved; for indeed, at beſt, the Driving of Bees is hazardous. However, if it anſwers any Way, I am of Opinion it will by our *Gaddeſden* Method; which is, if Bees do not ſwarm by the latter End of *June*, we deſpair of it the ſame Year. Then we take the full Hive and clap an empty one over it, which two we bind a Towel or other Cloth about their Brims and hold them upright, that is, the Bottom of the full one muſt be held next over a Kettle of hot Water (not ſcalding hot, leſt the Vapour melt the Honey) that the Steam may enter the Hive, and ſo diſturb the Bees as to make them get up into the upper Hive; which, by clapping the under Hive now and then with your Hands, they will do in a Quarter or half an Hour, which is known by their leſſening or ceaſing their Humming. Then have ready a Brimſtone Match, burning in a Hole in the Ground, and clap the lower Hive over it, to kill all the Bees that remain in it, and place the upper Hive on a Stool to ſtand for a Stock and Swarm the next Year. Thus you have the Honey and Wax of one Hive clear, and the other put in a Capacity of being filled with Honey and Wax hereafter; but, if you defer this Work longer than *July*, though the driving Part is rightly performed, yet it is a very great Chance if you are not obliged to feed the Bees, and then the Toll (as we ſay) will be as much as the Griſt. Indeed, when Bees do repleniſh a Hive with a ſufficient Quantity of Honey, the ſame Year they are drove, it is a conſiderable Improvement, becauſe the new Honey they get

will be better than the old Honey, which, had it remained in the Hive, and comb-died, the Bees would never thrive on it. *Secondly*, A Hive of Honey and Wax is got clear. *Thirdly*, The Bees are preſerved for Swarming another Year, beſides getting a Stock of Honey and Wax. And, *Laſtly*, they are delivered from that Idleneſs, which an early full Stock of Honey, got without Swarming generally creates in theſe Inſects, and makes them partake ſo much of the droniſh Nature, that it is a great Chance if they ever ſwarm any more.

CHAP. XXIV.

Of the Murrain in Cattle.

IN the very hot dry Summer, 1736, I was at *Beccles*, in *Suffolk*, to which Town is joined a moſt valuable Common, containing 1800 Acres of excellent grazing Ground, of ſuch Worth, that I was told, they have been offered 2000 *l.* a Year for it. It has three ſeveral Shiftings, and a fine River running through it, ſo that every Hoſe-keeper can fat two Bullocks in a Seaſon. Here is alſo kept a great Number of Geeſe, that by fine Grazing and Watering are ſaid to thrive a-pace, whoſe Dung is likewiſe ſaid to keep Cattle in Health, and ſo it may for aught I know: But, this Year, it happened, that as the Geeſe in this Month (as they are every Year) were ſent in great Flocks to be ſold in *London*; after their Departure, a new graſs ſprouted up, which the Dung, that was left behind, might, perhaps, putrefy and taint in this hot dry Seaſon; for it bred the Murrain among many

many of the horned Beaſts, by poiſoning their Blood, eſpecially the younger Sort, ſo that thirty have died in about ten Days Time, towards the latter Part of *Auguſt*, as I was informed on the Spot. This Diſtemper began under the Tongue, and ſwelled the Throat down to the Breaſt, which if not ſpeedily remedied, kills in a very few Hours. To prevent and cure this Malady, here follows the famous *Northampton* Receipt, publiſhed in the *Mercury* News-paper, the 20th of *Auguſt*, 1739, viz.

A Receipt for the Cure or Prevention of the Murrain in Cattle.

Take of Sallad-oil, 1 Quart.
Anniſeed, or Angelica Water, 1 Quart.
London Treacle, 1 Pint.
Fennugreek-ſeed, 8 Ounces.
Bole Armeniac, 6 Ounces.
Turmeric, 4 Ounces.
Madder, 4 Ounces.
Saffron, a Quarter of an Ounce.
Aloes, 6 or 7 Ounces.

The ſix laſt Articles muſt be finely powdered; then mix all together with four Gallons and a half, or five of ſtrong Ale, which will be ſufficient for forty Head of Beaſts, giving to each at leaſt a Pint.

CHAP. XXV.

Of the Quantities of Wheat produced on one Acre.

HOW ſometimes as much Wheat is got off a Clover-lay, as on a Tilth. It has been obſerved by our *Chilturn* Farmers, in *Hertfordſhire*, who practiſe the Way of ſowing Wheat on Clover or other Graſs-lays, that ſometimes as good Crops have been had off them, as off Tilth-grounds, eſpecially where Clover or other artificial Graſs has grown in a full Crop two Years together, by Wheat-ſeed prepared and ſown in a right Manner, and by their being compleatly dreſſed or manured; accordingly it proved ſo in the Year 1740, for all thoſe Lays, that were ſown in Broad-lands, their even Poſture of Lying preſerved them much better from the Damage of Froſts and Winds, than the ſharp high Poſition of Ridge-lands did. And, although Wheat that grew on looſe Gravels, Chalks, and other light Earths ſuffered the moſt that ever I knew this exceſſive froſty Winter and Spring, 1739-40. Yet in many of the low, ſtiff, ſheltered Grounds, there were as good Crops as ever were known. A Shock of fifteen Sheaves, here, yielded near two Buſhels of Wheat, and a great Number of Acres, of both Lays, and Tilth-grounds, produced twenty Shocks each Acre, five Quarters of Wheat in all; notwithſtanding this, there was ſuch a Scarcity in general, that in many Parts Wheat ſold in 1740, for ſeven and eight Shil-

Shillings a Buſhel. But, to illuſtrate this Matter, and make appear the great Quantities of Wheat, that may grow on one Acre of Ground, take the following Account from Mr. *Houghton:*

Mr. Houghton's *Account of great Quantities of Wheat growing upon one Acre of Ground.* One Acre of Land contains 6,272,640 ſquare Inches, and, allowing one Grain on each, it will amount to twelve Buſhels, ſix Gallons, and three Quarters of a Pint. One Ounce Troy-Weight contains ſix hundred and forty Grains of Wheat, becauſe thirty-two make a Penny-Weight; a Pound 6780 Grains; a Buſhel 491,520, ſuppoſing a Buſhel to weigh ſixty-four Pounds Troy, or fifty-ſix Averdupoiſe. Mr. *Everard*, of *Southampton*, ſet Grains of Wheat at ten Inches aſunder, and had from one Grain eighty Ears, which in all contain about four thouſand Grains. But, ſuppoſe they were ſet at twelve Inches Diſtance, and that each Grain produced but ſixty Ears, and each of them but forty Grains, this will amount to two thouſand four hundred Grains from one; and, at this Rate, an Acre will produce two hundred and twelve Buſhels, which is twenty-ſix Quarters and four Buſhels, for an Acre contains 43,560 ſquare Feet; this, multiplied by two thouſand four hundred, is 104,544,000 Grains, and thus divided by 491,520, the Number of Grains in a Buſhel, the Quotient will be two hundred and twelve Buſhels, that is, twenty-ſix Quarters and four Buſhel on an Acre. The ſaid Mr. *Everard* farther ſays, that though he ſet his Wheat-Kernels at ten Inches Diſtance, and although each Grain produced above ſixty, ſome ſeventy, and one above eighty Ears, yet it had Room enough to grow.

Now

Now ſince what he here propoſes is a greater Diſtance and a leſs Increaſe: None need queſtion the Poſſibility of ſixty Ears growing in a ſquare Foot, which contains one hundred and forty-four ſquare Inches, that is, about two Inches and a half to an Ear. The eighty-eared Stalk was lodged in *Greſham* College, to prove this Demonſtration Matter of Fact. And the ſame Gentleman ſaid, he believes, all Ground will not do this; but his little did, and he is ſure that may be improved. Mr. *Houghton* alſo obſerves, that the Reverend Mr. *Spinks* had a particular Wheat-root, having divers large and ſome ſmall Ears which grew from the ſame, that had four thouſand Grains in all its Ears.

The Quantity of Wheat that grew on one Acre and half a Rood of Ground, ſown in the common Way. It is certain that Seed ſet in light, rich Mould, at a certain Diſtance, has a greater Advantage of producing a larger Crop, than when ſown promiſcuouſly; becauſe here the Seed grows in a right Depth, and free of ſeveral Accidents, which the other cannot be ſaid to be. The greateſt Crop of Wheat I ever knew in our Parts, ſown in the random Way, was at *Dagnal*, in *Bedfordſhire*, where a Hog-dealer ſowed a little gravelly Field, containing one Acre and half a Rood of Ground, with Wheat, and received from it, in one Crop, fifty Buſhels: But the Ground did not want for enough of the beſt Dreſſing, and that was Hog-dung. In next Month I intend to give an Account of ſowing Wheat with ſingle, double, and drill Ploughs, on Tilth, Graſs-lays, and Stubble-grounds, according to different Methods now practiſed in ſeveral Counties, with the

the famous Copperas and other new Receipts for preparing and improving Wheat-Seed.

CHAP. XXVI.

Of SHEEP.

THE proper Time for Sheep to take Ram. In this Month our Folding-Ewes commonly go to Ram; therefore, it concerns the Farmer to be always provided with ſuch a good marked Ram, as I have deſcribed in my former Works, and not to ſuffer a ſmall, or ill-ſhapen, or a Lamb-Ram, of one or little more than of a Year old, to ram them. If of the laſt Sort, it is ſaid to get fooliſh Lambs that cannot ſo well find the Teat like others, and thus loſe their Lives, eſpecially when they fall in very wet and cold Seaſons: And, if of the former, it many Times ſpoils their Sale, or leſſons their Price. Of this none are more curious than the Suckling-Farmers of Houſe-Lambs, that they may have them of a white Face, white-codded, and white-legged, and all other Parts of the whiteſt Colour poſſible, with a broad Loin and well ſhouldered; for it is as cheap to have a good Breed as a bad one.

CHAP. XXVII.

Several curious Caſes relating to Wheat-Crops.

IN the Summer, 1734, the talleſt, and that Wheat which grew thickeſt on the Ground, had the ſmalleſt Ears, and that which grew thinneſt, the largeſt; becauſe, the Winter being mild and the following Part of the Year wettiſh, it grew to a monſtrous Bigneſs in Stalk, ſo that much green Wheat fell down; this made many to wiſh, who had ſown two Buſhels on an Acre, that they had ſown no more than one and a half. When Wheat falls before it is kerned, it occaſions the Ear to ſhrink, and the Corn to be thin bodied, becauſe the Sap cannot feed it enough, as the Stalk lies bent; but, if it falls when Wheat is full kerned, it will not ſo much hurt it, for then it will go on till it becomes ripe and hard. Wheat will riſe again and recover ſooner, if it falls before it is eared or kerned, than it will afterwards.

A Farmer near me ſowed Wheat as ſoon as his Turnep-crop was eaten off, which was on the twenty-fifth of *April*, 1737, and being a dry hot Summer, he reaped it on *Bartholomew* Day, and had a good Crop; for, this Year, many Acres produced Wheat that yielded two Buſhels in a Shock of fifteen Sheaves.

On the ſeventh of *Auguſt*, 1739, there fell a very heavy Rain, that continued for two Days, when moſt People had all their Wheat cut down, which cauſed a great deal of it to ſhoot out in Spires an Inch long.

In

In the ſame Year, the latter ſown Wheat proved the better Crop; the Reaſon was, becauſe the forward ſown, after it had ſpent itſelf by a mild Winter, was overtaken by the Weed in the next, cold, wet Spring and Summer, which checked and backened it, gave an Opportunity to the more hardy Sort of Weed, to get the Aſcendant and cripple it, and cauſed a great deal to miſs in the Ear, occaſioned by a very wet Blooming-time; while the more latter ſown Wheat, being late in Thriving, out-run the Weed, and alſo eſcaped the rainy Seaſon, ſo as to bloom well, and be far the beſt Crop.

A Farmer, who ſowed his Wheat in Stitches in a wet Time, had a far better Crop, than from that which was ſown in the ſame Field in a dry Time. This was on a chalky Loam, and, no Wonder it was ſo, ſince ſuch light, looſe Ground, is apt to crumble and waſh away from the Wheat-Roots, in dry, windy, froſty, and rainy Weather; therefore, if a moderate Rain falls in the Time of Sowing, it will cloſe this Sort of Earth about the Seed, ſo as to make the Wheat ſtand the firmer, and grow the better all the Year after.

A great Farmer fed his double dreſſed Wheat with Ewes and Lambs. His next Neighbour did the ſame. The firſt enjoyed a fine Crop at Harveſt, but the other loſt his, becauſe the Soil of the firſt was a dry, chalky Loam, and richly manured, which cauſed the Wheat, after being eat down, to rally again, and out-run the Weed; when the other that was a ſtiff wettiſh Loam, that had only a ſingle Dreſſing, gave Room to the black Bennet, and other Weeds, to outgrow the Wheat to its Deſtruction.

The forward ſown Wheat had done blooming in moſt Parts by *Midſummer* Day, 1739; it was blooming about a Fortnight, and damaged by fre-

quent Rains, while the latter ſown eſcaped by having a drier Time. A little Wet does good to the Bloom, but a great deal damages it. It began to bloom preſently after the Ear was out of its Hoſe.

A Farmer, famed for his Skill, loſt many Acres of Wheat in 1740, by ſowing it in Stitches, or two Bout-lands, on a chalky Soil, that lay to a Northern Aſpect, gave this Wind, with the Help of long Froſts, an Opportunity to crumble and blow away this looſe Earth from the Wheat-roots, and ruined the Crop. However, as Experience is the beſt Schoolmaſter, it taught him to ſow his Wheat, for 1741, in Broad-lands in ſuch light Land. When he was aſked, Why he ſowed his Wheat in Stitches in a Chalk? He anſwered, he uſed to have good Crops by it, but he found an Alteration to his Coſt this Year.

CHAP. XXVIII.

Of HAY.

THE Middleſex *Farmer's Management of his ſecond Crop of Graſs, or Aftermeath.* The latter End of this, or the Beginning of the next Month, the *Middleſex* Farmer mows his ſecond Crop of Graſs, that ſometimes pays better than the firſt Crop; becauſe, if the Fore-part of the Summer is long, dry, and very hot, it commonly ſcorches up moſt of the prime Crops of Graſs, as it happened in 1740, and in 1742, when theſe great Hay-Farmers made the leaſt Hay I ever knew, becauſe here they dung or dreſs ſo vehemently, as brings the Ground the ſooner into a burning Condition. As the ſecond Crop of Graſs

is

is of a more flashy weak Nature than the first, it sells for the less Price; but generally the Farmers keep this for their Home-Consumption, that they may be the better enabled to sell all, or most, of their first or prime Crop.

The latter Part of this Summer, 1742, was attended with so much constant Rain, from the twentieth of *June*, to the ninth of *July*, that caused a vast Aftermeath.

Great Care should be taken to preserve the second Crop of Hay from Rain, because this, being of a softer and more spungy Nature than the first, is more liable to be spoiled by Wets; all Hay, therefore, is best cocked up and carried in the middle Part of the Day, for, by the Sun's greatest Heat, the Hay is farther made in the Mow or Stack; but, if cocked and carried too early or too late, or in wettish Weather, the Damp will remain in it, and cause it to Mow-burn, and, perhaps, give the Hay a blackish Colour, and stinking Smell. Of this, none are more careful than these Farmers, who are, very justly, reputed the nicest Managers of their Grass and Hay; for, indeed, they have the greatest Reason so to be, because their Hay is exposed to the best Market in *England*, where, if it does not appear of a greenish Colour, and yield a sweet Smell, it fetches the less Money. Contrary to the *Aylesbury* Vale Farmer, who always endeavours to inn his Hay a little undermade, that it may Mow-burn, and cause his Cattle to drink the more Water, which he thinks tends the more to their quicker Thriving.

The Aftermeath Hay is commonly mowed in Barns, which is the best Place to keep all Hay in that is to lie but one Year; here also it remains securer from Firing than in Cocks or Stacks abroad, because here is not Weight of Hay enough

to preſs it down, and make it lie ſo cloſe as to heat to that Degree, nor can the Air come ſo much at it, as to breed ſuch a fiery Misfortune, but is ready in all Weathers to be cut for carrying Home, to Market, or for ſecuring a Cock or Stack of Hay, as it is making abroad, Therefore,

When any new-made Hay is to be cocked or ſtacked abroad, a foreſighted Farmer will have ſo much ready in his Barn as may furniſh him with enough, to carry up the narrowing or finiſhing of ſuch a Cock or Stack of Hay, in the Day it is moſt wanted, to prevent the Damage of Rains; for a Cock, of thirty or forty Loads in it, has been ſpoiled in *Hendon* Pariſh, by long exceſſive Rains, which began falling while it was making, and its Top in a flat Poſture, and continued till it went down to its Bottom. A Stack of Hay in the ſame Pariſh fired at *Chriſtmas*, by Reaſon of its being mowed in a damp Condition, which bred ſo much Heat, that it firſt rotted and crumbled away, till it became hollow, and made Room for the Air to get in, and, as it were, blow it up into a Fire, while the People were at Church. A Warning to all ignorant careleſs Hay-Farmers! For the Owner here had ſufficient Warning, if he had Wit and Dilligence enough to make a right Uſe of it. But, to prevent this in a great Degree, Trunks, or long, hollow, ſquare Boards, are made Uſe of; ſometimes two or three are put into a large Cock or Stack, which ſerve for Funnels or Chimnies to let out the hot Air, and cool and ſave the Cock from Firing. I could write more on this Account, but as I have largely treated on this Subject in the Month of *June*, I have the leſs to do here. In my next, I intend to enlarge on the Management of their Dung-hills, and the Dreſſing of their Meadow-grounds.

CHAP.

CHAP. XXIX.

An Account of Wheat, Barley, and other Grains and Graſſes; Trees, Garden-Ware, Cattle, Inſects, &c. for the Year 1740, *being a fuller Account than what I ever publiſhed of it.*

AS a very violent, froſty Winter preceeded the Harveſt, 1741, and had particular Influences on many Things, I ſhall take Notice of its Effects on Corn, Cattle, *&c.* as they occurred to my Knowledge at Home and Abroad.

That Wheat, which was ſown in Chalk, Gravel, or other light Soils, was in moſt Places a very thin Crop. One of the beſt Farmers in our Neighbourhood, who had about thirty Acres of Wheat growing on the North Side of a chalky Hill, in *February*, offered any one the Whole for ten Shillings an Acre; but it was thought they were not worth half ſo much, becauſe the Froſt and cold Winds had killed the greateſt Part of it.

Another Farmer, about two Miles off me, plowed up fourteen Acres of Wheat, that was ſown on a poor gravelly Soil, in Deſpair, and ſowed the ſame Land with Lent-grain.

Another Farmer, who had Wealth enough at Command, was ſo covetous and negligent, as not to dreſs an eight Acre gravelly Field with any Thing, though he ſowed it with Wheat in four-thorough Stitches. The Conſequence was this, the Froſts and cold Winds got down and ſtarved its Roots in ſuch a looſe Earth as this was, which obliged the Owner to plow it up, and ſow the ſame Land with Turneps; and, on being aſked the Reaſon of this his bad Management? He ſaid, he once came

came by a full Crop on the ſame Ground without any Manure, and he was in Hopes to have the like Succeſs this Time, according the old Saying, *A bad Husbandman has a good Crop once in ſeven Years.*

A Gentleman, in *Aylesbury* Vale, finding his Wheat-crop cut off on the Ridge-part of his Half-acre Lands, harrowed in Barley, and it proved an excellent Crop. His Management was this: The latter End of *March*, he harrowed the Ridge-part of each Land for near half a Pole, or more, wide, once in a Place; then ſowed two Caſts of Barley-ſeed over the ſame, and harrowed it twice in a Place, which covered it well, becauſe the great Froſts had hollowed the Ground very much.

Many Farmers in the *Chilturn* Country were to blame on this Account, I mean, for not ſowing and rolling in Barley-ſeed on their two and three Bout-Lands, where moſt of their Wheat was killed by the Weather; for by this they had ſo faſtened the Earth about the remaining Wheat-roots, that were alive, as to keep the Froſt from farther hurting them, and bid fair for a full Crop of Corn, for the Barley would have been ripe at the ſame Time the Wheat was; and this might have been done the ſafer, becauſe there were hardly any Birds or Inſects at that Seaſon to hurt the new ſown Corn; and it would have been much better than harrowing it in, by Reaſon the Tines would have killed moſt of the remaining Wheat-roots. Others thought it good Huſbandry to plow up their ruined Wheat, and ſow the ſame with Barley, as many thouſand Acres were, eſpecially the lighter Sort of Grounds that were dreſſed with Dung; for this increaſed the Evil, by making the Earth ſo light and hollow, as to let in the Froſt, and kill the Wheat-roots; and this was the Reaſon, that in the latter Part of that Summer ſo many Fields were over-run with May-weed, and in the former Part with Curlock.

The

The Lands that fared beſt this Year, were the Clays and ſtiff Loams, whoſe Surfaces became ſo hard and cruſty, as to keep out a great deal of the Froſt, and made the Wheat ſtand ſtrong. Next to theſe the flat Grounds ſucceeded, that were ſown with Wheat, particularly the ſmall, well-ſheltered Incloſures that lay defended againſt the Violence of the North and Eaſt Winds, which blew moſt Part of the Spring, and cut off a great deal of Graſs and Corn, but, moſt of all, that Grain which was ſown in high Ridge-lands, as they lay in open common Fields. Others again had Courage enough to truſt Providence, and let their Wheat take its Chance; and it was remarkable, that ſeveral, who had a very poor Crop in the Spring, had one at Harveſt.

A Farmer, near *Watford*, had, in the great Froſt of 1716, a Field of Wheat ſown in two Boutlands, and it was allowed by almoſt every Looker-on, that the froſty Weather had killed it; and they adviſed the Owner to plow it up, and ſow it with Barley, ſaying, if he did not, he would have nothing but what grew in the Thoroughs that lay out of the Wind's Power. A plain Inſtance of the Wiſdom and Goodneſs of God, who, though he made the Earth to ſeem barren for a long Time, even in the Month of *May*, 1740, yet, in a miraculous Manner, kept the Weeds down till the Wheat recovered a Head; at that Harveſt, in many Places, there were never better Crops, and, even where Wheat was very thin on the Ground, the Ears were wonderful large. I had one that had ſixty-eight Kernels in it. Some Ears were ſix and ſeven ſet, and one that I heard of, had eight ſet; for it is a Rule, that, after a ſevere Winter's long Froſt, there commonly follow the largeſt Ears; however, this diſcouraging Proſpect, in the Spring-time, cauſed the Wheat to raiſe a-pace from a Guinea a Load (which

(which is five Buſhels) to forty Shillings, as it was ſold in *Watford* Market on the thirteenth Day of *May*, 1740. But, by the good Appearance Wheat made the latter End of the Summer, it fell the next Harveſt to twenty-five Shillings a Load.

An old Farmer in my Neighbourhood, aged eighty-three Years, told me, that, about ſixty Years ago, there happened a very froſty Winter, and that no Rain fell from *Lady-Day* to *Midſummer*, which cauſed Wheat to riſe to fifty Shillings a Load; but, after Rain fell, the Lent-grain came up as thick as Hail; the Wheat thin and ſhort, yet was ſo well eared, that two Shocks produced a Load, and reduced the Price to fifteen Shillings a Load the following Harveſt.

Another old Farmer remembers that, about thirty-one Years ago, there happened a ſevere Winter and Spring, attended with great Snows, which, by violent Winds, were blown off the Ridges of Lands into Heaps; in other Places, the Sun melted the Snows in the Spring-Seaſon, and left the Ridges naked; then ſucceeded dry Weather for a long Time, and great Winds, which blew away the Earth, and uncovered the Roots of the Wheat, ſo that Thouſands of Acres of it were killed; but where the Snow lay in Heaps, and where the Ground was covered by it, there was as good Wheat as ever. However, this cauſed ſuch a Scarcity, as raiſed the Price of Wheat the next Harveſt to fifty Shillings a Load; and, for Grandſire Wheat, there were three Pounds refuſed that very Year for one Load of it; and yet there was a Farmer at *Ivingboe Arſon*, that had ſuch yielding Wheat that Year, as returned two Buſhels out of one Shock of fifteen Sheaves.

In ſhort, it was the Fate of this Year's Wheat, for the moſt Part, to come up late, and thin, and ſhort;

ſhort; it bloomed well, but kerned only half Way, ſo that it was as thin as Grouts.

In 1740, the *Thames* was frozen over, by a two Months Froſt, and an Ox roaſted whole on it, as it was done in 1716, which was ſo ſevere, as to enter the Earth eighteen Inches deep, in many Places; which, upon a Thaw, ſo mellowed the Ground, that it was one Horſe's Draught in four Difference to other Times, whereby the Land, with one Plowing, was made ſo hollow and fine, as it uſed to be with two or three Plowings; and, what was ſurpriſing to me, on digging about the Roots of a young Cherry-tree in my Ground, there was a Darr and an Humble-bee lying juſt by one another alive, and not above ſix Inches below the Surface, on the nineteenth of *March*.

After this we had a melancholy Sight, for, as ſoon as the Wheat had done Blooming, vaſt Numbers of ſmall black Flies attacked the Wheat ears, and blowed a little yellow Maggot, which eat up ſome of the Kernels, in others Part of them, and which cauſed Multitudes of Ears to miſs of their Fulneſs, acting in ſome Meaſure like a Sort of Locuſt, till Rain fell and waſhed them off; and, though this Evil has happened in other Summers to the Wheat in ſome Degree, and not done much Harm, yet, if the good Providence of God had not hindered it, they might have ruined all the Crops of Wheat in the Nation.

Now might be ſeen almoſt every where full Crops of Barley, notwithſtanding a long dry Summer, that continued ſo till about the Middle of *July*, which occaſioned this Grain to be under the Misfortune of two or three Conditions of Ripeneſs at Harveſt; that Seed, which lay deepeſt in the Earth was ripe firſt, that which lay next was almoſt ripe, and that which lay uppermoſt in the Ground was near green; how-

ever, this was not my Caſe, for I was free from ſuch Damage, by ſoaking my Seed-barley in a cheap Sort of Liquor, that ſtood me in no more than ſix Pence an Acre Charge; which I intend to diſcover in *March* next, in order to deliver my Country from this grand Evil of bad Malt, which, with the Want of Skill to brew, or Knavery in the Management of it, makes it one of the main Curſes that attend Travellers on the Road, and neceſſitates them to drink unwholeſome Ales and Beers, to the Deſtruction of many Lives, for almoſt at every Town in the Nation there is a different Sort of Malt-Liquor; whereas, by ſteeping the Seed, the Barley comes up in a little Time, in an even Crop, in the drieſt Weather, and thereby makes Malt all alike to the greateſt Advantage.

Oats likewiſe, and Peaſe, were for the moſt Part plentiful Crops, becauſe we had many fine Showers of Rain between the Middle of *July*, and the latter End of *Auguſt*, when they were mown and cut down; but the Horſe-beans fared ill that were ſown in Fields on Account of the dry Seaſon, which ſtunted their Growth, and ſo parched up their Bloſſoms, that few of their Stalks podded.

Natural and artificial Graſſes were likewiſe the pooreſt Crops I ever knew, eſpecially where the moſt Dung was lateſt laid on, which ſo hollowed the Surface, as to let in the Froſt, that chilled the Roots, and kept the Graſs from growing; then directly ſucceeded a dry, cold Spring and Summer, which farthered the Misfortune, and ſtunted the Graſs.

Between *Edgware* and *London*, the Graſs-fields looked all yellow inſtead of green, by being run over with the worſt of Graſs, called the *Butter-flower*.

A Per-

A Person near *Stanmore*, in *Middlesex*, had but four Loads of Hay off a ten Acre rich grazing Field.

Another near *Barum-Wood*, who rented forty Pounds a Year, in all his Meadow-ground had no more than eight Loads of Hay off his whole Farm; for, in many Fields of Grass, it happened, that, this dry Summer, the Dung drove before the Scythe, occasioned by being late on, and thereby served to burn up the Grass, instead of nourishing it; and, in the Vales, the Drought continued so long, that it brought them under almost the same Fate in their Meadow-grounds, all which caused Hay to rise in the *London* Market from thirty-six Shillings to three Pounds a Load; for the Drought was so great, as to affect the deep-rooted St. *Foyne*, and caused it to be a poor thin Crop, although the Roots of this Grass run into the Chalk and Gravel above two Feet deep.

At *Gaddesden*, where we used to have two Bays of Hay, we had but one off our clayey Meadow Land, and yet came off better than many others; for some thought it not worth their While to mow any of their short, thin, natural Grass, although it grew on Land that they rented at thirty Shillings an Acre.

Cattle likewise very much suffered by the Frosts and Droughts, insomuch, that the Graziers were forced to feed their Field Oxen with Hay, in the Height of Summer, so that they were sold in *August* and *September*, 1740, half fat in *Smithfield* Market.

But this was not all the Graziers Misfortune, for they suffered much by buying in Guest-Cows in *April* and *May*, in Hopes to fat them in their grazing Grounds, and this to a great Number; but it not proving so, by the Shortness of their

Graſs, they became over-ſtocked, which forced them to let many of theſe Cows take Bull, to keep them on for Calving the next Year, to their great Loſs.

It was almoſt as bad with the Dairy-men; one of whom, for Want of Whey and Skim-milk enough, was obliged to ſell a Sow and ten Pigs at *Leighton* Market, in *Bedfordſhire*, on the thirteenth Day of *July*, 1740, for twelve Shillings and ſix Pence, that would fetch in *July*, 1742, four Pounds. A Scarcity that ſo affected the Butter and Cheeſe, as to cauſe the firſt to be ſold in our Country for eight Pence a Pound, *Warwickſhire* Cheeſe three Pence Half-penny a Pound, Beef with us three Pence a Pound, Veal a Groat, and in *London*, in the Month of *April*, 1740, Mutton was ſold for ſix Pence a Pound.

In ſhort, our Rivers were all frozen up in the Winter, and, in the Summer following, our Ponds, for the moſt Part, dried up; which gave us an Opportunity of cleaning them out, and making Uſe of the Mud and Dirt to form a Pile or Heap, by mixing Chalk and Dung with the ſame, for an excellent Compoſt.

To this I add, that in *Aylesbury* Vale their Meadow-ground was ſo burnt, and Graſs ſo ſhort, that they were forced to cut down Aſhen-Boughs, and give them to their fatting Oxen; and, why their lower Vale-grounds had given very good Crops of Wheat this Year, while their Ridge or higher Grounds ſuffered, may, in ſome Meaſure, be accounted for thus, *viz.* Not altogether, becauſe ſuch Ground lay low, out of the Power of Winds; but alſo, becauſe their Springs commonly lie ſo ſhallow here, that, in Winter Time, the warm Steams, which ariſe from ſuch Springs below the Surface, give a warm Moiſture to the Roots of the

the Wheat, and prove a Nouriſhment to them, while that which grows in higher Land periſhes with Cold; this Help, with the Goodneſs of their warm-natured Earth, and low Situation of it, returned ſome Farmers a vaſt Increaſe, while others could not pay their Rents. Therefore Farming is called a *Lottery*, in Reſpect of the many Incidents that Crops and Cattle are liable to.

Oak-trees were in many Places damaged, by the Froſt's getting into their Trunks, which cauſed their Sap to ſwell into an Ice, that rived and burſt many of their Bodies into Cracks; yet many Fruit-trees, as the Froſt was joined by frequent Rimes, were improved by it, by their impregnating the Tree's Bodies and Arms with their nitrous Qualities, which produced a great Increaſe of Fruit, for it is an old Country-Saying:

A great Rime Year,
A great Fruit Year.

And it happened accordingly in great Plenty of Cherries, Apples, Pears, *&c.* But it killed moſt Garden Ware, inſomuch, that Noblemens Gardeners could not ſupply their Maſters Tables with a Sprout.

This Year proved the freeſt from Slugs, Grubs, Caterpillars, Darrs, Worms, Waſps, Flies, Adders, and many other Inſects, that ever I remember; not a Slug was ſeen all the Summer, becauſe the Froſt had entered the Ground ſo deep as to kill moſt of them, which gave ſuch a Security to our young Crops of Turneps, Cole, Savoys, and other Field and Garden Ware, that we ſuffered in the Summer by nothing but Drought.

Bees in many Places died in their Hives; one of my Neighbours loſt three out of four, and Birds periſhed

periſhed in vaſt Numbers, particularly the ſmaller Sort, which made the Poet ſing:

But now no Muſic glads my Ear,
No ſwelling Note, no melting Strains;
No Nightingale, nor Thruſh, is near,
A gloomy Silence only reigns.

Here I thought to have finiſhed my Account of Particulars that happened in the Farming Buſineſs this fatal Year of Famine, but, conſidering that a Retroſpection of theſe Caſualties may hereafter prove inſtructing to my Reader, I ſhall farther enlarge as follows: *Viz.*

In this Year, the Month of *January* was a very ſnowy Seaſon, all the Ground being under Snow all that Time, which ſtarved or froze many of the leſſer Fowls to Death; a Dunghil Cock, that uſed to rooſt on a Tree, was found frozen dead, and the ſame Fate had many old Crows.

On the twenty-firſt of *June*, 1740, Barley-flour was ſold for eighteen Pence a Peck at *Gaddeſden*, for making Bread; and, on the 31ſt Day of *July* following, the firſt new Barley, that was brought to *Hempſtead* Market, out of a ſandy Ground in *Bedfordſhire*, was ſold for eight and twenty Shillings a Quarter.

This long violent Froſt began on *Chriſtmas*-Day, 1739, and was ſevere ſo as to rot Turneps ſo much, that, by the fourteenth Day of *January*, many Acres of the forward ſown ſtunk like Carrion, and cauſed great Numbers of Sheep to fall ſick and die; and thoſe that eſcaped, from being near fat on Turneps, fell very lean, ſo that very few fatted on Turneps this Year, but many were fatted with Peaſe and Hay. This leads me to the Publication of ſeveral Caſes, as follows, *viz.*

Caſe

Caſe the firſt. In the Pariſh of *Studham*, a Farmer ſowed fifty Acres with Wheat, which grew in his gravelly, loamy, incloſed Fields, that lay on ſuch a high Situation, as gave the Froſts Room to kill ſo much of it, that he had not quite one Bay full at Harveſt.

Caſe the ſecond. Another greater Farmer than he, who lived about two Miles from him, in *Flamſtead* Pariſh, had hardly any more Wheat this Harveſt, than what would maintain his Family, and ſow his Ground for another Crop.

Caſe the third. In ſome of the high chalky Lands in *Ivinghoe* Pariſh, the Froſt had ſo penetrated this light Earth, that on the twenty-eighth Day of *Auguſt*, 1740, I ſaw ſome very poor Wheat ſtanding, which ſeemed to have more red Poppy among it, than there was Wheat; while other Grounds in the ſame Pariſh, that were ſtiff Loams, and lay low, bore as good Wheat, and as much, as ever I believe was known.

Caſe the fourth. Near *Dunſtable* Downs, in a white hurlucky Soil, that lay expoſed to the North and Eaſt-Winds, there was a Farmer who was forced to pull up ſix Acres of Wheat with Hands; others mowed ſome, as being too thin and ſhort to reap. Another did the ſame in his poor gravelly Soil, and had but half a Bay of Wheat for ſowing many Acres.

Caſe the fifth. In the ſame whitiſh Land, another Farmer had nine Acres of Barley ſtanding, on the 17th Day of *December*, 1740, ſome of which was full ripe above a Fortnight before, and the reſt full green, by Means of the late frequent Showers, that brought up thoſe Seeds which lay in the uppermoſt Part of the Surface, and which, by the long Drought in the former Part of this Summer, could not take ſufficient Root to grow and ripen

in

in Time. A plain Inſtance of the great Value of my Barley-ſteeping Liquor, which cauſes all the Seed to come up at once, and grow in a fine even Crop in the drieſt Seaſon.

Caſe the ſixth. In *Whethamſtead* Pariſh, *Hertfordſhire*, a Farmer was forced to pull a whole Field of Wheat of twelve Acres with Hands, and got only five Shocks of ten Sheaves each from every Acre; yet the ſame Farmer had elſewhere twenty Shocks of Wheat from an Acre, that was thought to yield two Buſhels of Wheat each Shock. The twelve Acre Field was a loamy, wettiſh Soil, and lay flat and very high, but the fruitful Fields were more ſheltered from the Severity of the North and Eaſt Winds, which this Year were the chief Occaſion of theſe Misfortunes.

Caſe the ſeventh. That Wheat which grew this Year in a full Crop was ſo full kerned, that the large Corns, for the moſt Part, yielded near five Buſhels of Flour, out of five Buſhels of Wheat; and the drier Sort of it fetched ſix Shillings a Buſhel on the eighteenth Day of *September*, 1740, at *Hempſtead* Market.

An Account of Crops of Grain, &c. *for the Year* 1741.

THE laſt Year's Scarcity of Wheat and other Grains, cauſed Wheat, and all other Corn, to hold dear Part of the next Year. All the Winter, to *April*, 1741, Wheat ſold in *Hempſtead* Market, from thirty to thirty-five Shillings *per* Load; Barley, twenty-two Shillings *per* Quarter; Oats, two Shillings, and two Pence *per* Buſhel; Peaſe, four Shillings, and Horſe-beans three. In *April* I ſold red *Lammas*-wheat for about ſix Shillings a Buſhel,

Buſhel; but, as all the preceeding Winter, and the following Spring, were attended with fine mild Weather, and by Means of many Showers, that began about the firſt of *June*, 1741, Wheat, Barley, Oats, Beans, and Peaſe, flouriſhed to Admiration; ſo that there were never ſeen finer Crops on the Ground than on the fifteenth Day of *June*, when dry Weather began and continued a great While; which gave the Wheat a fine Blooming-time, ſo that it fell in *Leighton* Market to about twenty-four Shillings a Load, on the ſixteenth of *June*, 1741, and to a lower Price afterwards, till it came to three Shillings a Buſhel in *July* 1742.

An Account of Crops of Grain, &c. *for the Year* 1742.

THE Winter, 1741, was a very mild one, and after that ſucceeded a long Continuance of dry Weather, inſomuch that we had little or no Rain from *March* to the twenty-ſecond of *June*, 1742, when a great Thunder-ſtorm happened, that laſted almoſt all Night, and produced Showers till about the twenty-ſixth of *July* following, at which Time moſt of the Farmers in the Southern Parts of *England* began their Harveſt. By this long Drought our mowing natural Graſs was ſo prodigious ſhort at *Midſummer*, that it tempted us to let it ſtand till near Harveſt before we mowed at *Gaddeſden*, and they that forbore lateſt fared beſt; however, in the Main, we had the leaſt Crops that ever I knew, as well as thoſe Graſs-Farmers in *Middleſex*; and, the Rain keeping off ſo long, the Aftermeath near *London*, did not get ſuch a ſufficient Head as to make it worth mowing in ſeveral Places, which cauſed old Hay to ſell in *July*, 1742, for about

three Pounds ten Shillings a Load; this Extremity of Weather hindered me from ſowing any of the Lady-finger Graſs-ſeed. But, in the Vale of *Aylesbury*, the Aftermeath grew ſo faſt, that, about the Middle of *July*, the Graziers were in great Want of Cattle to feed on it; for they had but a very ſmall Stock of Horn-beaſt before, becauſe Cows were never ſold dearer, I believe, than they did this Spring, 1742. Wheat, in Vales, I think, was never bigger, and enjoyed a fine Blooming-time, in an upright Poſture, till the Thunder-ſhowers fell, and laid moſt of it flat. The Horſe-beans, that began to kid before the Rain came, were ſtunted by the long Drought, and never ſhorter; but the Peaſe of all Sorts were never in a better Condition. Oats recovered well, and Barley in ſtiff Grounds was generally good, but on Chalks, Gravels, and Sands, as bad, vaſt Quantities never ſhooting into Ear: I was better off, becauſe I ſteeped my Barley-ſeed. The Apple-trees were ſeized by the Caterpillars, which cauſed thoſe that bloomed forward to fare ill, but the latter bloomed grew in Plenty. I never had more Kerroon Cherries in my Life, on a great Number of young Trees of my own planting; I ſold ten Dozen at a Time of them at *Leighton*, for ſeventeen Pence a Dozen, in *July* 1742. My White-hearts, and all the budded Sort, as well as the wild Cherries, were large Crops.

The CONCLUSION.

I ſhall conclude this Monthly Book with the Words of a Miniſter to his Pariſhioners.

—— 'See how this Corn ſtandeth, juſt as it did 'laſt Year! The Stalk the ſame, the Ear the ſame, 'and the Grain the ſame; only it doth not ſtand 'upon

'upon the ſame Spot of Ground. One would 'think that the ſame Corn had only changed its 'Place, or rather was riſen anew out of the Earth. 'The Manner, how this ſhould be, is to me in-'conceivable; only, that ſo it is, I ſee and am 'certain: And, methinks, I herein perceive the 'Working of that Almighty Power, by which, 'at the laſt Day, ſhall be wrought the Reſurrecti-'on of the Dead; when the ſcattered Particles of 'our Bodies ſhall be reunited, and we ſhall riſe 'the very ſame Men we are at preſent, and ap-'pear before the Judgment-Seat of God, to re-'ceive according to the Things we do here, whe-'ther they be good or bad.'

F I N I S.

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THE

THE

MODERN HUSBANDMAN,

For the Month of *September*.

This and next are the two principal Months in the Year for ſowing Wheat-ſeed, and, as it is of the greateſt Conſequence to the Farmer to obtain a full Crop of it, I ſhall therefore be very particular in my Obſervations of the ſeveral Ways of preparing the Ground for its Reception, nouriſhing it afterwards, and the Manner of ſowing it as practiſed in different Soils and Places in England, *becauſe it is the King of Grain, and ſhould pay two Years Rent: That is to ſay, the Year it grows in, and the Fallow-year*, &c.

CHAP. I.

Of ſowing Wheat in Vale-Grounds.

THEIR *Plowings.* In the Vale of *Ayleſbury* and many others, their Ground for the moſt Part lies in Ridge half Acre, and whole Acre-Lands, which are never plowed a-croſs, but kept up to their ſtinted Breadth, Length, and Height, according as they lie wetter or drier: And, as their Soil is generally a bluiſh Clay, or ſtiff black Loam, nothing better anſwers their Purpoſe than Wheat and Horſe-beans. But as all Ground naturally

affects Change, of late, many have ſown a Tilth-crop of Barley, where Wheat and Beans have been before, and found it ſucceed to their Wiſh. Peaſe they ſeldom ſow, becauſe this rich Earth is very likely to cauſe them to run into Straw, and too little into Corn. Now, to prepare this Land for the Reception of Wheat, they ridge up at Fallow-time with their Foot-plough (which is all the Sort they uſe here) and they do the ſame at the firſt and ſecond Stirre-times, but never caſt down till the laſt Plowing; for here they plow ſometimes four, and ſometimes only three Times, when the preceding Winter has been very froſty, and the Summer very dry, as it happened in 1740, which helped all to the beſt of Tilth, with the feweſt Plowings that have been known in many Years paſt.

Their Manures and Dreſſings: Are for the moſt Part Cart-dung and Fold, and ſometimes (but ſeldom) both on one Land. But, where they can buy Pigeons Dung, they are glad of all Opportunities, and fetch it ſometimes ten or more Miles an End, beſides making Uſe of their own; for here are many Dove-coats, more, I believe, in the two Counties of *Bucks* and *Bedfordſhire*, than in any other two beſides, except *Yorkſhire*. Alſo, of late, I have known ſome make Uſe of Coal-ſoot who live on the Brink of the *Chilturn* Country, for farther is too far for having it from *London*. Their Cart-dung is made Uſe of either long or ſhort. To have it rotted and well ſhortened, aſſoon as they have done ſowing their *Lent*-grain, they begin to carry out the Dung they made all the Winter in the Stable and Farm-yard, and lay it in a Clamp, near the Place it is to be made Uſe of, with ſome Mould ſhovelled up about the ſame, and ſpread over its Top to prevent the Sun's parching and drying it too much. And, in this Poſture, they let it lie to rot, all the Summer, without turning it (for

here

here they are not ſo good Huſbandmen in this Reſpect as ſome are in other Parts) till juſt before the laſt Plowing, the latter End of this Month; then, after they have harrowed the Ridge-land, they lay on their Dung, and ſpread it very carefully over the ſame. Others will lay their Dung on, and plow it in at Fallow-time as it comes out of their Yard. Others again will lay their long Dung over the Land, after they have fallowed, and let it lie ſpread thereon ſome Time, before they ſtirree it in, believing that its Cover prevents the Sun's Exhalations, and keeps in the Spirit of the Earth to its great Improvement. And though (ſay they) ſome think it a wrong Way, becauſe the Sun and Air may dry the Goodneſs out of it, yet, Experience proves, that the Earth draws in its Vertue, and the remaining looſe and ſhaggy Part receives and lodges the Dews, which again is drawn in, and communicated to the Land. Some, again, make ſeveral Clamps of their Dung in the Farm-yard, and let it lie there to rot, till they carry and plow it in, at, or near Wheat-ſeed Time. When they make Uſe of Pigeons Dung, they ſow it by the Hand out of a Seed-Cot, and, as ſoon as they have harrowed a Ridge-land, they ſow about ten Buſhels over the half Acre, and then immediately ſow their Wheat-ſeed, and plow all in together. But when they ſow Soot, it is done about *Candlemas*, and then they ſow eight Buſhels on each half Acre Land, as thin as poſſible, ſo they cover all the Ground; and, if a Dripping-time follows, it does a great deal of Service, in keeping off Chills, by warming the Roots of the Wheat; and, indeed, if no Rain happens for ſome Time, the very Moiſture of this Sort of Ground will draw in the Quinteſſence of the Soot to its great Benefit. Now as Wheat is the chiefeſt Grain,

Grain, that is generally ſown ſooneſt, and lies longeſt in the Earth, there ſhould be a Proviſion made for it accordingly; and therefore, all Manure and Dreſſing ſhould be beſtowed upon it in a moſt plentiful Manner, as well to enable its infant Growth to withſtand the Severity of a long and ſharp, and often a wet Winter and Spring, as to ſupply its Roots with a ſufficient Food to the laſt. Yet, in this Reſpect, a Medium ought to be ſtrictly obſerved, for, if ſuch Earth is too much dunged and dreſſed, then the Danger of having the Crop run into too great Burthens of Straw, falling down, and yielding a poor thin Kernel, is to be feared: And, if too little is applied, then a ſmall hopper Ear with few Kernels is like to be the Return at Harveſt. But I muſt here obſerve that the Vale-Farmer ſeldom dreſſes his Wheat with Pigeon Dung; this and their Hen Dung are for the moſt Part ſown over their new ſown Barley.

Sorts of Wheat ſown in Vales. It has been indiſputable for almoſt Time out of Mind, that the red *Lammas*-wheat proves the beſt Sort of Seed for all rich, ſtiff Grounds, and accordingly has been ſown in *Aylesbury*, and moſt other Vales, till very lately a few Farmers have made Choice of the pirky Sort to ſow in its Room, becauſe they find its cloſe bunchy Ear generally carries more Kernels in it than that of the long-eared red *Lammas*; is rather hardier, better withſtands Blights, and fetches near, if not quite, as much at Market, when it comes off this fertile Land; ſo that, though this pirky, white-eared, reddiſh Wheat is, and has been for many Years the chief Sort that we ſow in chalky, gravelly, and dry Loams, in the *Chilturn* Country of *Hertfordſhire*, it is now got into the Vales, and made Uſe of as the beſt yielding Wheat they

they can ſow. Others, as about *Taunton*, in *Somerſetſhire*, are as much in Love with what they there call *Holland* Wheat, which, I muſt own, is the whiteſt largeſt Sort I ever ſaw; and though, in reddiſh and yellowiſh Clays, it is apt to get a tawny Colour, yet in blue and white Clays, and ſome other Sorts of ſtiff Lands, it will maintain its Whiteneſs much better, and eſpecially ſo, if changed by ſowing it in different proper Soils, and reaped before it is too ripe. There are two if not more Sorts of Wheat, as the white *Lammas*, and white Pirks. We have an excellent Sort now made Uſe of in our Part of *Hertfordſhire*, which we get out of *Buckinghamſhire*, where, in ſeveral Places of it, they make it their Buſineſs to come by a right Sort of its clean Seed, by ſowing the choiceſt they can get in new plowed up Sward-ground, which we find to be an excellent Change for our *Chiltern* Chalks, Gravels, and dry Loams; and the ſame from thence again, for the blue Clays and black Loams in Vales. Accordingly I ſent thirty-four Buſhels of Wheat-Seed, that came off Chalks and Gravels, into *Derbyſhire*, laſt Year, being ſeventy Miles, all Land-carriage, to a Gentleman who diſpoſed of the three Sorts of Wheat among his Tenants for a Trial of their Skill, who ſhould get the beſt Crops of them in their low ſtiff Soils: And it is by this and other Means that this ingenious Gentleman has been the Cauſe of very great Improvements in the Country he lives in, for I have ſince ſent him ſeveral Sorts of other Grains for the like End and Purpoſe, *&c.* A rare Example! which if more of the abler Sort would undertake, it would not only improve their own Eſtates, by adding to their Tenants Abilities, but alſo, in Time, the reſt of the Country about them, who are to be convinced and brought over from old erroneous Ways of Huſ-

bandry,

bandry, by no other Means than by their Neighbours practiſing much better; and thus they may lay the Foundation of a general Reformation of this Science of Agriculture, to the immenſe Benefit of the Nation, and which I ſhall the more willingly employ my Pen about, if I find my Monthly Accounts of ſucceſsful Facts, in Farming, meet with that Credit as to be put to Trials. But there is another Sort that many ſow, for the Sake of its great Yielding, ſhort Grinding, and Sureneſs of a Crop, *&c.* and this is the *Dugdale*, in *Eſſex* called *bold Rivet*, by ſome *Cone-wheat*. In *Somerſetſhire* where, I believe, is the moſt ſown of any one County in *England*, there are two Sorts of this bearded Wheat, here called *Blue-ball*, and *Grey-ball*, which do well on a ſtiff rich Land; and are preferred, becauſe they are moſt free from Lodging, being eaten by Birds, and from that fatal Corn-diſeaſe, called the *Mildew*: But the white-bearded Cone-wheat excels of theſe Sorts.

Preparing their Wheat-ſeed for Sowing. In the Vales they generally keep up to their antient cuſtomary Way of making a Brine of Salt and Water, till it is ſtrong enough to ſwim an Egg; and ſo bigotted are the Vale-men to this Way in particular, that they believe there can be no other found out that is better; therefore, they let their Wheat-ſeed lie in Brine in a Tub with a Tap and Tap-whips in it, ſometimes from Night to Morning and longer, ſtirring it often and ſkimming it well to take off the light Corns, and the Seeds of Weeds, and then draw off the Liquor, in order to let the Seed dry an Hour or two on the Ground, and ſometimes to drain all Night before they lime and ſow it. But they are greatly miſtaken, in believing, there can be no Improvement made on this Account, for I ſhall publiſh ſeveral Ways that exceed this of theirs in this and the next Monthly Book.

Sowing

Sowing Wheat in Vale Ridge-lands. In the Vale of *Aylesbury* they ſeldom or never begin Sowing Wheat till *Michaelmas*, leſt their fruitful Soil cauſe it to grow rank and Winter-proud, and to ſpend itſelf in Growth, as to appear, in *April* and *May*, of a ſickiſh, yellow, dying Colour, when it then ſhould ſhew itſelf in a moſt flouriſhing, verdant, green State and lively Condition. After a Ridge half Acre Land has been well dunged or folded over, or otherways well dreſſed and plowed into a fine Tilth, they harrow all plain, and ſow it broad-caſt twice in a Place, by croſſing the Throw. Thus the Seeds-man ſteps backward and forward, in all four Times, till he has done ſowing the half Acre Land, and then begins to plow all the Seed in with the Foot-plough by the Earth. If the Land is in a fine Tilth, in good Heart, and ſowed about *Michaelmas*, the Quantity of Seed is three Pecks; but, if the half Acre is ſowed late, then more, but ſeldom exceeds a Buſhel. After Sowing they never harrow here, but, as they leave it, they let the Ground lie in the ſame Poſture, all the remaining Part of the Year till Harveſt, for the Top of this Land will ſhoal and run into a fine Hollowneſs even by very ſmall Froſts.

CHAP. II.

Of plowing, manuring, and ſowing Wheat in Chilturn *Grounds, on Graſs-Lays.*

AS *Chilturn* Grounds, for the moſt Part, are incloſed, lie higher than Vale-lands, and contain different Sorts of Earth in them, it is as difficult a Matter to have a right Knowledge in their Management, as it is eaſy in that of Vale-Soils;

Soils; becauſe in the Latter every one makes a Fallow every third or fourth Year, and generally plows and ſows as his next Neighbour does. But, in *Chilturn* incloſed Fields, they for the moſt Part act otherwiſe, elſe they would be at a Loſs to get Clover and other artificial Graſſes, Turneps, and other particular Crops which many of the Vale-Men cannot have. Hence it is, that the *Chilturn* Men can carry on the Suckling of Houſe-lambs all the Year, fatting of Sheep, ſowing Weld, Woad, *French* Wheat, Cole-ſeed, Coriander, Carroway, Hemp, Flax, and many other Seeds; planting of Liquorice, Hops, Saffron, Potatoes, and many other Vegetables, in different Manners, one from the other, that is not in the Power of moſt Vale Plough-farmers to do in their common open Fields; yet, without a *Chilturn* Farmer underſtands the Nature of his Land, and the Management of it accordingly, he may in a few Years ruin himſelf as many have done, as I could make appear by many Examples, had I Room; in order, therefore, to improve ſuch Land by ſowing Wheat-ſeed, I ſhall proceed as follows, *viz.*

To ſow Clover or other Graſs-Lays with Wheat-Seed. There are ſeveral Lays of Graſs generally plowed up the Beginning of this Month, for ſowing them with Wheat-ſeed; but the moſt common Sort of Lay is that of Clover, becauſe it is more ſown than any other artificial Graſſes, and is juſtly called the *Mother of Corn*, for its breeding in the Ground thoſe ſeveral enriching Qualities, that have often been the chief Means of producing good Crops of Wheat without any other Manner of Dreſſing or Manure, provided the Clover grew two Years together in a plentiful Manner. And the Reaſon why we ſow ſuch a Lay ſo forward is, becauſe the Wheat has Heat of Weather and Time allowed it to gather,

ther, ſpread itſelf, and get a good Head before the Winter comes on, for overcoming and killing all ſuch weedy Graſſes, as may ſhoot out from the Roots of the Clover, or thoſe of former Weeds that often on latter-ſown Lays get the Dominion of the Wheat, and ruin great Part of it. To perform then this Piece of good Husbandry in a right Manner, the Ground ſhould be plowed up in Broad-lands neither too deep nor too ſhallow, but in a middling Way, juſt enough to bury the Graſs-turf; for, the nearer the Wheat-roots lie to it, the greater Benefit they will have, that being the richeſt Part of the Soil; then, after all the Ground has been ſufficiently harrowed, I ſow three Buſhels of Wheat on every Acre, and harrow in the Seed once, twice, or more in a Place as the Ground requires it. When all is thus far done, I ſpread rotten Dung all over the Surface as equally as I can, and thus let it lie the reſt of the Year.

A Second Way. When one or two Years Lay of Clover is plowed up, get forty or better ſixty Buſhels of Stone-lime, and put it in two Heaps on an Acre; then let a Man ſlake it by Degrees with Water, and, when all is run into Powder, it ſhould be ſown either out of a Seed-cot by the Hand, or out of a Wheel-barrow, or little low Cart with a Shovel, as is commonly practiſed in *Surry*, and many other Parts. Or, let ſuch Stone-lime be firſt laid on ſuch plowed Ground in two, three, or four Buſhel-heaps, at a Pole under each Heap, and ſo remain to be gradually ſlaked by the Weather, which, when done, ſhould be ſpread all over the Acre with a Shovel; then immediately ſow and harrow in your three Buſhels of Wheat-ſeed. The Advantage accruing from this Sort of Management is, that this hot, dry, ſweet Manure gives ſuch a ſpeedy Vege-

tation to the Wheat-ſeed, as to make it overcome and hinder all Clover and Couch-graſs, Weeds, Snails, Slugs, Worms, Grubs, Froſts, chilly Wets, and other deſtructive Cauſes, from hurting it; Worms eſpecially, for theſe are commonly increaſed by Clover-lays, and then bite the Wheat-roots in two, and cauſe them to die.

A Third Way: As it is practiſed every Year by the moſt accurate Farmers, is this: He muſt be Maſter of a large Flock of Sheep ready for Folding; then he plows up only one Acre of a Clover or other Lay, which has lain under artificial or natural Graſs, one or two Years; and, when he has harrowed it ſmooth, he ſows three Buſhels of prepared Wheat-ſeed all over it, and harrows it in; then he immediately claps his Fold on it, and, when he has near folded the Piece, he runs up a Row of Hurdles, to keep the Sheep from biting the new ſown Corn as it comes up: Then he plows up another Acre, and ſo on till he has finiſhed the whole Field. This is an excellent Method, for I take Folding on ſuch Wheat to be the very beſt Management of all others, becauſe, as a Layer of Clover affords but a very ſhallow Staple of Mould to lodge and envelope the Seed, the Wheat is very apt to fall or blow down much more eaſily than in Tilth-ground, which in this Manner is greatly prevented by the Tread of Sheep, whoſe Feet faſten the Earth about the Grains, and thus defend them from the Violence of Winds, Slugs, Snails, Fowls, and other Inſects and Vermin. In ſhort, for my own Part, I think, I may ſay, I never failed of Succeſs, whenever I dreſſed my Clover-lay in this Manner; nor ought it ſo be ever omitted, when it can be conveniently done.

A Fourth Way. Another, as ſoon as he had plowed and harrowed his Clover-lay, harrowed in his

his Wheat-ſeed, and, after it was come up, he rolled it all over, and not before, for, if he had rolled it as ſoon as ſown, ſome of the Grains would have been ſo bound in, as not to be able to make their Way through; beſides, by rolling it thus after it is come up, the Stalks, in ſome Meaſure, are new earthed up. And it is thus that many have come by large Crops of Wheat.

To plow and ſow a Lay of natural Graſs with Wheat-ſeed. But there is another Way of managing a Lay of natural Graſs, that is to be done by drawing a Foot-plough with a broad Share on it, which will pare and turn up the Turf very thin, much better than a pecked-ſhare Wheel-plough: Then immediately after this another Foot-plough may follow, with either a pecked or chizzel Share, to turn up and throw freſh Virgin-mould over the Turf, and ſo on till the whole Field is finiſhed, and then all will appear like one intire Surface of Mould; when this is done, harrow it plain and ſow three Buſhels of Wheat over one Acre that is to be harrowed in.——Now, it may be wondered at, why I direct the Sowing ſo much on one Acre of Ground as three Buſhels of Seed, but this is eaſily anſwered; for, unleſs this Quantity is ſown, the Crop may ſuffer, becauſe in ſuch Ground there is generally not only a Stock of Worms and Grubs bred by the Turf's lying many Years undiſturbed, but, by the Shallowneſs of the Staple, the Seed is more than ordinary expoſed to the Beaks of Field-fowl, and other devouring Vermin, which may eat up ſo much as to leave a very few of the Kernels to grow into a Crop, unleſs a Quantity of Seed be ſown accordingly.——Thus on plowing a one Year's Clover-lay up, and Dreſſing, Plowing, and Sowing it after one of the Ways I have here made known, a good Crop of Wheat may, and is often got, as from Seed ſown in Tilth-ground, and that

in one of the cheapeſt Manners poſſible; and not only a Wheat-crop is thus improved, but the Turf, by lying to rot almoſt a Year, on plowing the ſame Ground, and ſowing it with Beans, Peaſe, or Oats next *Lent*-ſeaſon, will in Courſe, with great Fertility, puſh forward the Growth of a moſt valuable Crop.——There is indeed, another Way practiſed by ſome Farmers in *Hertfordſhire*, and that is, by plowing and ſowing a Clover-lay and letting it lie undreſſed till *February* following, and then ſowing all over one Acre twenty Buſhels of Soot.——How therefore an Author can write a *Book of Husbandry*, without taking Notice of theſe excellent Ways of improving Wheat and Rye-crops, is moſt ſurpriſing, ſince they are ſome of the chiefeſt and moſt profitable Articles in this Science, though never wrote of, as far as I can underſtand, by any one whatſoever.

How to double-dreſs a Clover lay to great Advantage for ſowing it with Wheat-ſeed. An old experienced Farmer of my Acquaintance, after feeding a Crop of Clover that grew on a gravelly Loam, dunged it at *Chriſtmas*, which cauſed it to grow the ſecond Summer as well as it did the firſt. Then, after he had eaten off the firſt Head in the ſecond Year, he let it reſt till it got another, about the latter End of *Auguſt*; and, the very Beginning of this Month, he plowed all the Graſs in, to lie and rot a Fortnight or three Weeks, when he harrowed in three Buſhels of common Wheat on one Acre, and then began directly to dreſs the ſame, by folding every Night on it, till he had dreſſed all the Top, and it returned him a very good crop at Harveſt.

A Caſe of ſowing Wheat on a Clover-lay. In a gravelly, loamy, incloſed Field, a Farmer plowed up one Part of it, the Beginning of this Month,

and

and harrowed in his Wheat-seed; but, the Season being very dry, when he did it, the Weeds grew up and choaked the Wheat, so that it became a very poor Crop. The other Part of this Field was plowed up three Weeks after when the Ground was thorough wetted, and, after he had harrowed in his Wheat, he let it lie till the Spring and then footed it. Now, between the Time of sowing the Seed and dressing the Ground with Soot, he found that the Slug had eat some of the Kernels in the Earth, and damaged so many others, that the remaining grew very thin, but into very large Stalks and Ears; for, as it happened in the wet Month, 1740, to be a very wet Time, it was thought, that, if Hands enough were allowed, a Bushel of these Slugs or naked Snails might be gathered in an Evening off three Acres of Ground.——How valuable then must my Copperas Receipt be for dressing Wheat-seed, to prevent its being eaten in the Ground by those devouring Insects.

What Wheat is proper to sow a Clover-Lay with. As pirky red Wheat sells for near or quite as much as the best red *Lammas*, and will grow into a surer Crop on Clover-Lays, than that will, it ought to be preferred for this Use; and not only for this Reason, but also because a Peck of Seed may thereby be saved in sowing one Acre, for pirky Wheat will gather sometimes into six or seven Stalks, when the red *Lammas* will but into one or two. A Farmer, whose Land was most of it a Chalk and Gravel, said, he had sowed red *Lammas* till he had lost it.

A serviceable Observation concerning sowing a Clover or other Grass-Lay with Wheat-seed. On the twenty-first of *September*, 1741, I plowed up one of my Fields that had lain under Clover two Years, and, when I had so done, I let it lie without sowing Days: My Reason for so doing was this,

this, If a Piece of Ground has lain two Years under Clover, it requires Days to lie and ferment before the Seed is ſown in it; but if it has lain under Clover but one Year, then Days had been enough, becauſe all ſuch Ground, on being new broken up, will heat and ferment at firſt; and this it will do the more, the longer it has lain down. Now if the Wheat-ſeed was harrowed in immediately after Plowing, ſuch Ground would be very apt to canker many of the Seeds by Heat that ſuch Fermentation might produce, and cauſe a thin Crop at Harveſt, and perhaps ſmut and pepper Wheat by thus damaging the Kernels. Therefore obſerve, you Farmers, whoſe Bread depends much on the ſowing and feeding of Clover and other artificial Graſſes, that you let ſuch Ground lie ſome Time between Plowing and Sowing, that the Heat may be ſpent, and many of the Roots of the Clover and Weeds have Time to die; and, if any happen to remain alive at Sowing, the Harrow, by this Means, will be the better enabled to deſtroy them.—How valuable theſe Items of improving Clover-Lays are, may be eaſily comprehended, by the great Importance Clover in particular is to *Chilturn* Farms, ſince now it is a general received Opinion, that if ſuch incloſed Farms are not ſown with Clover, or other artificial Graſſes, a Farmer muſt not expect to pay his Rent, Taxes, and put Money into his Pocket beſides; becauſe here Land is commonly let dearer, Servants Wages more, and Proviſions at a greater Rate than they are in remote Vales; and here may appear the Difference of writing from Theory and Practice. No Author has hitherto done Juſtice to this Article of ſowing a Clover-Lay with Wheat, for I know not one that ever practiſed it; nor ſhould I have been capable of writing on it in ſuch Variety of Caſes, had

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I not been a Practitioner near thirty Years, and travelled many hundred Miles in that Time for increaſing my Knowledge in this boundleſs Science of Agriculture.

The Benefit of plowing a Clover-Lay with a Fin on the Share. If a pecked-ſhare Wheel-plough is made Uſe of to plow up a Clover-Lay, there ſhould be a Fin or Piece of flat Iron clapped on by the Smith to the Side of a pecked Share, elſe it will go too deep, and then the Wheat will loſe the Benefit of the richeſt Part of the Earth, that is, the cruſty Part or Surface of the laſt Clover; and, if it is rightly laid on, it will, with the Skill of a good Plough-man, turn up the Turf-part as thin as you pleaſe. All Clover-Lays ſhould be ſown in a dry Time, becauſe, if they ſhould be ſown in a wet Time, the Horſes Feet will, by preſſing down the Ground, leave ſuch a Hollow as to let the Water ſtand and rot the Seed.

Different Ways of ſowing Clover-Lay with Wheat. Although ſome plow and ſow their ſtiff Lays of Clover the latter End of *Auguſt*, yet the moſt general Time is in this Month; therefore, when a Layer of Clover has been laid down only a Year, ſome think it the beſt Way in this Month to ſpread all over every Acre about fifteen Loads of rotten Dung, and, after it is equally ſo done, to plow it in as ſhallow as poſſible, becauſe the Roots of the Wheat will reach it and thrive exceeding well, for, by this Management, the Harrow-tines will mix the Wheat-ſeed with the Dung and Mould; but, if ſuch Ground, by two Years lying down, is ſuſpected to turn up ſtiff and clotty, then others think it beſt to ſpread the rotten Dung over the Top after it is plowed and ſowed. Another eminent Farmer takes this Method, as being out of Love with only the laſt Way, becauſe he ſays, when Dungs are laid and left on the

the Surface after Sowing, it is apt to breed and bring up Weeds with the growing Wheat; and therefore he firſt ſpreads his Dung all over the Piece, and plows; then harrows in his Seed, and immediately runs his Fold all over it, by which the Sheep tread and faſten in the Seed, and dreſs the Ground in a double Manner. However, defer not ſowing your Wheat-ſeed on Clover-Lays the very Beginning of this Month, if you can, leſt you loſe your Crop; for, ſuch Wheat lying then ſhallow, if you ſow it late, the Froſts are apt to meet it in the Chip and kill it.

Harrowing in of Wheat on a Clover-Lay. Some People harrow in their Wheat on a Clover-Lay only long-ways two or three Times, and never croſs-ways, becauſe, they ſay, by this, the Tines would be apt to harrow out the Twitch-graſs and other Weeds to the Damage of the Wheat-crop; but others, bolder, venture this, and harrow as many Times one Way as the other. Now one Rule or *Noſtrum* will not do here, for, if I ſhould perſuade only to one Method in this Caſe, I ſhould write in this Science like a Quack in Phyſic; but the Harrowing muſt be done according to the Soil. If there ariſes a good Deal of Mould on harrowing the Seed in long-ways two or three Times, it may be enough; if not, it ſhould be likewiſe harrowed a-croſs that a ſufficient Quantity of Earth may be raiſed to cover the Seed.

How Wheat ſown on a Clover-Lay was ſpoiled. A *Chilturn* Farmer who had a Crop of Clover that lay two Years in a moiſt Loam, whoſe Staple was about eighteen Inches deep on a red Clay: On this he beſtowed only one Plowing, harrowed in Oats in *March*; when this Crop was off, in *September* following, he gave the Land but one Plowing,

and

and harrowed in Wheat; but the Conſequence was, that, by the Sourneſs and Poverty of the Ground, the black Bennet bred and crippled the Wheat-crop. Another Farmer having a Crop of Clover that lay by one Year, in this Month he plowed it once, and harrowed in his Wheat-ſeed without any Dreſſing or Manure, and his Crop of Wheat fared much as the other did. A Farmer, near me, ſows every Year many Acres with Clover, but takes Care to dreſs it extraordinary well, for, if he neglects this, the Weed would get up between the Wheat-ſtalks, and ſpoil his Crops; to prevent which by his folding three-hundred Sheep that he conſtantly keeps, and by ſooting and dunging vaſtly beſides, his Wheat is made to overcome the Twitch or Couch-graſs, and all other Weeds that would annoy his Wheat-crop.

How Wheat ſowed on a Clover was a good Crop. I had a Field that returned me two good Crops of Clover, in two Years; and, in this Month, I gave it only one Plowing with our Wheel-fallow-plough into Broad-lands, and, after harrowing once in a Place long-ways, I ſowed my Wheat-ſeed, and harrowed three Buſhels of it on each Acre; which, as ſoon as done, I laid on fifteen Loads of Dung on every Acre, that made it grow and flouriſh well till *January*, when I fed it down with my Sheep almoſt bare, but it quickly recovered, and was an admirable good Crop; for the Winter was ſo mild, and the Spring ſo warm, that, if I had not thus eaten it down, I ſuppoſe it might have been too rank, laid, and ſpoiled that Way; however, as the Soil was a Loam, and a red Clay, I ran a Riſk, for, if ſome Weather had happened, it might have kept down the Wheat, and given the Weed Room to have been Maſter.

How a Farmer fed his Sheep in Winter with Wheat and a Clover-lay. Another Farmer, near *Dagnal* in *Bucks*, took this Method: After the Field had laid down two Summers under Cover, he gave it in this Month a Plowing and harrowed in Wheat, which lay till the twenty-firſt of *November* following; and then he ſowed over every Acre twenty Buſhels of Soot, in order to force on a forward, large, timely Head, for a Winter Subſiſtence for his Sheep, and it anſwered accordingly; for he not only enjoyed a feeding Crop, but at the ſame Time gave the Ground another Dreſſing, which, in all, were three real Ways of Dreſſing the Land; firſt with Clover, next with Soot, and laſt with the Sheeps Dung and Stale. But this, as I ſaid, is not to be ventured on in all Soils. This was a loamy, chalky Earth, that lay low and warm, and not apt to run into Weeds, which brought on an exceeding good Crop of Wheat at Harveſt.

How another Farmer did ſo, and loſt his Crop of Wheat by it. Another Farmer, near me, fed his Wheat down with his Sheep in *January* and *February*, but loſt moſt of his Crop by it, notwithſtanding his Ground was in good Heart and dreſſed well. The Reaſon was, that this Man's Soil was a wettiſh Loam, that lay high, and was expoſed very much to the cold Winds, that ſo crippled the ſhort-bitten Wheat, as to give Room for the black Bennet and other Weeds to get the Dominion of the Corn. The former dreſſed his Clover-lay on the Top, this preſſed his Dung in, and indeed, it is thought by many, that Top-dreſſing is beſt in theſe Caſes, provided it be laid on immediately after the Corn is ſown, becauſe it keeps the Roots warm, and ſecures them the better from the Froſts, than if plowed in; however, it is plain by theſe two Caſes, that different Soils

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muſt have different Management. I ſhould here have wrote how a Farmer got three ſucceſſive good Crops of Corn after Clover; but, for Want of Room, I ſhall defer it till *March*; alſo, how another Farmer gets his Crops of Clover always by harrowing in his Seed with his Wheat, but of this laſt in next Month: Likewiſe of the Benefit of ſowing Clover, and the Damage of ſowing Ray-graſs, and Trefoil, but of this in the Month of *March*.

Several curious Caſes, proving ſome Farmers right, and ſome wrong, in ſowing a St. Foyne *Lay with Wheat*, &c.

Firſt Caſe. A conſiderable *Chilturn* Farmer having enjoyed a St. *Foyne* Crop many Years, after it was worn out, he plowed it up in Winter by the Help of Gift-ploughs, and afterwards ſeveral Times himſelf, till he had killed all Graſs Weeds and Roots, and got the Ground into a fine Tilth; then, about *Michaelmas*, he plowed and ſowed the ſame with Wheat-ſeed, but had not a quarter of a Crop in Return; however, to recover this his Miſtake, the next Spring-time he plowed up the ſame Land, and ſowed it with Peaſe. After the Peaſe were off, he plowed and ſowed the Field with Wheat again, and then had a good Crop.

Second Caſe. Two Farmers, living at *Great Gaddeſden*, about two Miles diſtant from the former, hearing of the firſt Man's Loſs, forbore to ſow ſuch Ground with Wheat the firſt Time, but inſtead thereof, after having plowed their St. *Foyne* Land ſeveral Times, to get it into a fine Tilth, ſowed it the firſt Time with Turneps, and after them Barley, and then Wheat to great Profit.

Third Caſe. Alſo Farmer *Butler*, of *Wards*, near *Ivinghoe*, fell into the like Miſtake, by ſowing Wheat for the firſt Grain on new broken up chalky

St. *Foyne* Ground, and had hardly any in Return. After that, on one Plowing, he ſowed Oats, and next Time Wheat, which then anſwered to his Satisfaction.

Caſe the Fourth. Notwithſtanding the firſt three Caſes happened within two or three Miles of another great Farmer near me, yet he ſowed his St. *Foyne* new broken up Ground the firſt Time with Wheat in 1741, but had a poor Crop for his Pains.

Caſe the Fifth. However, a Farmer near the laſt would not go on ſo, for he took a better Method, thus: About *Allhollantide* he began to fallow his worn out St. *Foyne* Ground, and, after he had by two Plowings more got it into a Tilth, he ſowed it with Turneps, in *July* 1742; for, he ſaid, he had tried to get a Crop of Oats, after he had plowed his St. *Foyne* Ground more than once, but could not come by a tolerable one; therefore he ſows ſuch Land the firſt Time with Turneps, then Barley, and then directly with Wheat; for that his chalky Earth riſed ſo looſe at firſt, that the Corn-roots could not get a cloſe Lodging, which occaſioned the Misfortune. But, by ſowing Turneps the firſt Time, the Sheep trod and cloſed the Ground ſo well, as to produce Corn in Abundance: For ſuch long reſted Earth is not only an Enemy to a Corn-crop, the firſt Time of ſowing, by being in a very looſe Condition; but the Worms alſo, that bred in its undiſturbed Pores for ſome Years together, often do great Damage, unleſs a Turnep-crop precedes the Corn-crop.

Several curious and ſerviceable Obſervations, relating to the ſowing Clover-lays with Wheat.

Firſt. A clever Farmer does this: He ſows half his Wheat-ſeed on the rough Ground as the Plough leaves

leaves it, which he harrows once in a Place; then he ſows the other Half, and harrows that in the ſame Way once in a Place: After this he harrows all the Ground twice in a Place croſs-wiſe.

Secondly. Wheat, that is ſown on a Clover-lay, is never ſo heavy as that ſown on a fallow Tilth.

Thirdly. About *Weſtbyde*, near *Pinner*, in *Middleſex*, ſeveral have almoſt ſpoiled their reddiſh Clay-ground, by often ſowing it with Clover, becauſe it ſours this Sort of Ground to a great Degree; for, by its long lying down, and the Cattle's treading on it, it becomes clung and out of Order for ſowing it with Wheat, that requires the fineſt and holloweſt Ground. A great Farmer, near me, had a poor Crop of Wheat from off a Clover-lay, becauſe, by the Ground's lying two Years under this Graſs, it ſoured it very much, and thereby gave Room for a great deal of Twitch or Couch-graſs to grow and increaſe among the Wheat, ſo as to cripple it; ſince which he lets his Clover lie but one Year, and gets good Crops of Wheat, becauſe in this ſhort Time the Ground retains moſt of its former Hollowneſs, and the Weeds have not Time to grow to any great Head.

Fourthly. A Clover-lay, as I have obſerved, ſhould be plowed up forward, ſowed thick, and no ways dreſſed with Dung, either at Top or at Bottom, but manured over the Top at *Candlemas* with Soot or Lime, or Oil-cake Powder, or Soap-aſhes, or Peat-aſhes, or Clay-aſhes, *&c.* becauſe, the Ground, in this Condition, being naturally ſour, common Dung will rather increaſe the Evil, for, when it is laid on the Top, as ſoon as the Wheat-ſeed is harrowed in, as the uſual Way is, it will produce Weeds, and cauſe the old Roots

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of the Clover and Twitch-grass to shoot out and endanger the Crop of Wheat; on the Contrary, when one Dung is laid on the Top, the Winter Cold will keep down their Growth, and by manuring on the Top with any of the Powders, or with Pigeon, Hen, or Rabbit-dung at *Candlemas*, it will cause the Wheat to get such a Head as to cripple the Weeds, and go on in a prosperous Manner.

Fifthly. When you have plowed up your Clover-lay for sowing Wheat, always give the Ground one Harrowing, before you sow your Wheat, lest the Seed run between the Thoroughs and be buried; and withal, be sure to plow it as shallow as can be, and in as small Thoroughs as possible, then your Seed-wheat will enjoy the best Part of the Ground, and there will be the more Thoroughs and finer Earth for it to grow in.

The Damage of Worms by Means of Clover-lays. As I have said, Worms are so apt to breed in Ground sowed with Clover, that, where it lies two Years together, some have been afraid to let a Crop of Wheat succeed, lest the small red Worms and Grubs gnaw its Roots, and kill a great deal of it, and therefore sow Oats, that the Damage may be the less, if it happens. But, in Case the Clover lies but one Year, they fear not this Disaster, because then the Land is, as it were, under only a common Fallow, and so they have not Time to breed. However, if they will but steep their Seed in my Copperas liquor, and afterwards sow over the Top Peat-ashes, Soot, Lime, Oil-cake Powder, or any such like Manure, they need not be under any Apprehensions of Worm-damage.

Why Wheat-seed is sown earlier and thicker on Grass-lays than in Tilth-grounds. When any of these Lays are plowed up, the hard crusty Surface that is turned in lies so near the Top of the Ground,

Ground, that, if common Wheat, is not ſown early enough to enjoy ſufficient Heat of the Weather, to make it ſtrike its Roots with Vigour, it will lie the longer before it takes the Earth: In the mean Time, the Froſts may come and chill it ſo, as to kill a great deal. Another Benefit of early ſowing Wheat-ſeed is, that it will quickly ſhoot into a ſpreading Head, and diſappoint the Rapine of Field-fowls, that otherways would lie ſome Time on it, and do great Miſchief, and thus it will preſerve itſelf againſt the Severity of the Winter and Spring-ſeaſons. Again, by ſowing a large Quantity of Seed early in this Month in ſuch hard Earth, it gives the Wheat an Opportunity to grow and out-run all Shoots of Clover, natural Graſs, or Weeds, that may ſprout out from their old Roots plowed in. Laſtly, in ſuch Lays of Graſſes, eſpecially thoſe of the natural Sort, Worms and Grubs are commonly their Inhabitants, as being an undiſturbed Shelter and Place of Abode for their Breed. Wherefore it ought to be expected, that theſe Inſects will gnaw and live on the Kernels, Roots, and Blades of the Wheat; and this is one Reaſon why we ſow three Buſhels on one Acre, that there may be an Allowance for the Damage of Inſects, Froſts, Fowls, and Weeds; for Wheat, ſown in this Manner, is more expoſed to ſuffer by theſe Incidents, than in any other Form whatſoever; and likewiſe, to the great Misfortune of being blown down before it is ripe; and therefore it is, that many roll the Wheat as ſoon as ſown, or have it trod in by the Feet of Sheep, while they are folded on the ſame.

How to prepare Wheat-ſeed a new Way, ſo as to ſecure it againſt Worms and Smut. As Clover and other Graſs-lays are in particular more ſubject to the Breed of Worms and Grubs than other Ground, by Reaſon of its longer reſting from the Plough and

and Harrows: It is abſolutely neceſſary to provide againſt their Rapine, which here they commonly commit on new ſown Wheat, by gnawing its firſt Sprout, or Blade, juſt within the Ground; for thus I knew a Farmer loſe, I believe, twenty Pounds in one Field, by the Damage of ſmall red Worms, while the Wheat was in its infant Growth, in a gravelly, chalky Soil, about *Aylbol-lantide.* Now it is not ſteeping the Wheat-ſeed in Brine that will effectually hinder ſuch a Loſs, for the Strength of the Brine and Lime may be ſoon drawn or waſhed away, and then the Worm may remain Maſter. But, to anſwer this great End, a more powerful Application muſt be made Uſe of, and that is one I learnt of a *Hertfordſhire* Man, —— Put a Tap and Tap-whips into a Tub, and then in with your two or three Buſhels of Wheat-ſeed; this done, take three Pounds of Copperas, which I buy for one Penny half-penny *per* Pound, and put it into two or three Gallons of ſcalding Water, where with Stirring it will diſſolve preſently; let it cool a little, and put all of it, while it is warm, over the Seed; a Quarter of an Hour after, pour over all the Wheat-ſeed as much black Mudgel-hole Water as will make the Whole ſwim four Inches, which will give you an Opportunity, by ſtirring all ſoundly, to ſkim off all the Seeds of Weeds, and the light underline Corns that occaſion Smut and Pepper-wheat. In this Liquor let the Seed lie twelve Hours, or, if you are in Haſte, ſix, four, or two; then draw all clear off, and lime it directly for ſowing the ſame Morning; but, if the Seed lay and drained twelve Hours before Liming, it would be rather better; but ſave the drawn off Liquor, to ſerve towards ſuch another Parcel, with an Addition of one or two Pounds more of Copperas, and ſo on. This Ingredient is of a poiſonous Nature, but of no ill Conſequence

Conſequence to the Seed; for it will ſo taint the Earth, as to keep off Grubs, Worms, and Slugs, and thus ſecures it, not only againſt their Miſchief, but preſerves it from Smuttineſs. In next Month, I ſhall give another new Receipt for the ſame Purpoſe.

CHAP. III.

Of ſowing Wheat on plowed up Stubbles.

THIS is what is frequently done in *Chilturn* Countries, eſpecially when this King of Grain is ſold dear, and hardly any where elſe; becauſe Vale-lands, nor even thoſe that lie wettiſh in *Middleſex*, will not admit of this Huſbandry; which, indeed, is but a hazardous Management, at beſt, and ſeldom returns thoſe plentiful Crops as are expected; nor even tolerable ones, unleſs the Ground is extraordinary well, or double dreſſed. However, by ſuch large Aſſiſtance, the Change of Seed, and good Plowings and Houghings, light Earths may be made to hold Sowing every Year, for many Years together; but in Clays, and ſtiff Loams, the Caſe is much otherwiſe, for theſe are ſoon ſoured by Croſs-cropping, and require a great deal of Time and Plowing to get them ſweet again; hence many have loſt a great Part of their Labour, Charge, and Time, in attempting to ſow their Stubbles by croſs-cropping ſuch ſtiff Ground. But, that this Undertaking may anſwer in the beſt Manner, I ſhall proceed to give an Account of Diverſities of Ways of performing it.

To ſow a Barley-Stubble with Wheat. In our incloſed *Chilturn* Country of *Hertfordſhire*, it is

frequently practiſed to ſow a Barley-ſtubble with Wheat, provided the Soil is a Gravel, Chalk, dry Loam, or of ſome other lightiſh Nature: And, as both theſe Crops are great Peelers of the Ground, it muſt be well dreſſed with Dung, or Rags, or Soot, or Fold, or Horn-ſhavings, or have ſome other plenary Aſſiſtance, elſe you muſt not expect a great Return at Harveſt. Therefore, as ſoon as Harveſt is Home, if it be even the latter End of this Month, or later, you may plow and prepare ſuch a Barley-ſtubble for Sowing it with Wheat theſe ſeveral Ways:

Firſt, by Dunging ſuch a Stubble, and then plowing it in very ſhallow, on which harrow in your Wheat-ſeed, and is what is done by ſeveral Farmers. But I do not commend this Piece of Huſbandry, for ſuch Dung muſt conſequently be waſhed lower and lower by the Fall of Rains, till the Wheat-roots receive little or no Nouriſhment from it: Therefore the more Judicious, as ſoon as ever they have plowed up their Stubbles, will harrow in their Wheat-ſeed, and ſpread their rotten Dung all over the ſame, to keep off Froſts and Fowls, ſhade the Roots in hot dry Seaſons, and be ready to receive the Waſh of Rains, that muſt very much aſſiſt the Wheat, and cauſe it to make a quick Growth.

A ſecond Way. Where the Surface is greaſy, the Stubble may be plowed into Broad-lands, the ſame Way it lay in before, by making a new Furrow or Thorough where the laſt Ridge was, and a new Ridge where the laſt Thorough was; and thus it may lie three or four Weeks for the Graſs and Weeds to rot: Then harrow all even, and hack the Ground a-croſs; then harrow, and dung, and plow, and ſow your Wheat in Two-bout Lands; and obſerve, that when you perform this Sort of Plowing, called *Hacking* or *Combing*,

Combing, you are to lay the Hacks up ſharp, that you leave no Kicker, but what is broke by the Tail of the Plough, for then it will break and rub them down: Otherwiſe, if the Ground is not hacked clean, you will leave a large Kicker, which will be moſt of it whole Ground. But, where a Barley-ſtubble Surface is clear of Weeds and Graſs, it is a common Practice with us to hack ſuch Ground a-croſs, directly after the Barley is got off; then forthwith to harrow it plain, dung, and plow, and ſow Wheat-ſeed in Two-bout Lands, or what we call *Four-thorough Stitches*, with the Wheel-plough. And here I am to take Notice, that when ſuch a *Hitch-crop*, as we call it, is attempted, it generally happens, that the Wheat falls down before Harveſt, and ſuffers in its Ear, becauſe the Ground is ſo hollow as to cauſe the Misfortune, and thereby gives Room for the Slug to lodge and breed; and, in rainy Seaſons, the Ear may ſprout or rot, and the Straw be ſpoiled: Therefore, where the Fold is not employed as a Dreſſing, I conceive it good Management to draw a Roll over ſuch Ground, whether it lies in Broad-lands or Stitches, and it will cloſe the Earth, and faſten it about the Roots of the Wheat, ſo as in a great Degree to prevent theſe Evils: But then ſuch Rolling muſt not be done till the Wheat has got ſome Head.

A third Way to ſow a Barley-ſtubble with Wheat. In this Month, Wheat is often ſown on Barley-ſtubbles in the *Chilturn* Country, where there has been a full thick Crop of it, and the Ground is in good Heart. And this is to be done, by plowing the Earth into Broad-lands the Beginning of this Month; and, after it has lain a Week or two, harrow the Earth plain, plow it into Broad-lands again, and harrow two or three Buſhels of Wheat-ſeed into every Acre. Others will plow the Bar-

ley-ſtubble firſt into Broad-lands, and harrow it down plain; then plow and ſow Wheat in Two-bout Stitches. Others, where the Ground is light and clean of Weeds, will plow and ſow Wheat in Two-bout Stitches, directly off the Barley-ſtubble. But ſuch Grounds muſt be well manured, or elſe you may ſpoil their Earths for Years afterwards, becauſe Barley and Wheat are two voracious feeding Crops, that require the beſt of Dreſſing, or elſe they will not anſwer.

To ſow Wheat on a common Pea-ſtubble. This is a very common Piece of Huſbandry, and practiſed by many with good Succeſs, becauſe Wheat thrives better after Peaſe, than any other Grain, for the following Reaſons: *1ſt*, If the Soil be a Gravel, Chalk, dry or ſtiff Loam, and the Peaſe were a full Crop, they ſo ſpread and cover the Ground, that it brings it under a greater Hollowneſs and Fineneſs, ſometimes, than the Plough and Harrows can, during a whole Summer. *2dly*, By ſuch great horizontal Cover, the Weeds are deſtroyed. *3dly*, By ſuch Cover, the Ground is very much ſecured againſt the Exhalations of the Sun, that greatly adds to the Riches of the Earth. *4thly*, By this cheap Improvement, the Land is in a Condition to be ſowed in any Form of Plowing. *Laſtly*, Here ſhould be ſown no more than two Buſhels and a Peck, or two and a half of Seed, at moſt, when a Barley-ſtubble may require more, for no upright Crop can be ſo ſerviceable to the Earth, as a ſpreading or covered one. And, if you have not dunged the Ground at this Seaſon, you ought to manure it in the Spring, by ſowing over the Wheat Soot, or Lime; Coal-aſhes, or Peat-aſhes; or Hen, Pigeon, or Rabbit Dung, *&c.* I have known Wheat ſown on a Pea-ſtubble, and, in the ſame Seaſon and Soil, Wheat ſown in a Tilth,

and

and the Wheat on the Stubble out-did that on the Tilth.

To ſow Wheat after drilled Peaſe. As before I have wrote of ſowing Wheat after Peaſe in a random Way, I now write of doing it after drilled Peaſe. In Sands, ſandy Loams, Chalks, Gravels, or dry Loams, or ſtiffer Ground, where Peaſe are ſown by the Drill, Plough, Box, or Hand, in Drills or Furrows: They are commonly ſown ſo ſoon, and of ſo forward a Sort, as to be ripe in *July* or *Auguſt*; then it is, that many give the Land only one Plowing, and harrow in Turnep-ſeed; and, if the Seaſon is propitious, they may be eat Time enough off, to ſow the ſame Ground with Wheat, which is one chief Effect of ſowing Peaſe in Drills: A Mode that ripens them ſooner than in the random Way. But if Hog, Home-Grey, Maple, Poplar, or ſuch, are ſown in Drills, it may be this Month before they are fit to cut, and then Wheat ought to follow directly. And, to do this, moſt ſow their Wheat Broad-caſt, on one Plowing, or by a ſecond Plowing, in Stitches, and but few in Drills. For my Part, I ſow Wheat both Ways, according to the Nature of the Ground, and my Conveniency, as I ſhall further obſerve by and by.

To ſow Wheat on a Bean-ſtubble. Of all Sorts of Croſs-cropping, there is none leſs prejudicial than this, of Wheat directly following Peaſe or Beans. I can hardly call it any Damage to the Ground, for neither Peaſe nor Beans are ſo great Drawers of the Ground, but that the Cover of the one, and the thick ſtanding Crop of the other, ſo kills the Weeds, and keeps the Earth hollow and fine, as to compenſate the Damage of their Growth; therefore the ſame Method may be likewiſe taken here, as in that of Peaſe, by giving the Ground only one Plowing and Harrowing in Wheat. But

do

do not forget to dung, or otherwiſe to dreſs well, for, if you forget this, the Crop will ſhew your Neglect.

Five Ways of ſowing Wheat-ſeed on Wheat-ſtubbles.

Firſt Way. This was done, in the Pariſh of *Ivinghoe* in *Bucks*, on a light Soil, thus: The laſt Crop of Wheat had been ſown in Broad-lands, and, the latter End of this Month, the Farmer ſpread rotten Dung all over the ſame; then he ſowed Half his Wheat-ſeed over the Top, and plowed both that and the Dung in together; which as ſoon as finiſhed, he ſowed the other Half of his Wheat-ſeed, and harrowed it in. This Method produced him a large Crop.

Second Way, was done near *Dagnal* in *Bedfordſhire*, thus: The laſt Wheat-crop grew on a chalky Loam, and being a full Crop, it killed Weeds, and hollowed the Earth, which tempted the Farmer to hack the Ground forthwith; then he harrowed it plain, and plowed and ſowed the ſame with Wheat again in Two-bout Stitches.

Third Way. The third Way was performed by my next Neighbour, who having a full Crop of Wheat on his loamy incloſed Field, that grew in Two-bout Lands, he plowed the Stitches down, and harrowed the Ground plain; then he plowed and ſowed his Wheat in Stitches again.

Fourth Way. Between *Chaffont* and *Amerſham*, there grew a good Crop of Wheat on a gravelly, loamy Soil, in Four-bout or Size-lands. As ſoon as this Crop was carried off, the Farmer plowed the Size-lands into Broad-lands, and, after they were harrowed plain, the Ground was well dunged. Then he plowed and ſowed the ſame a-croſs the laſt Work in Two-bout Lands, or Four-thorough Stitches, with Wheat, the latter End of this, or Beginning of next Month, 1742, and it produced a good Crop.

Fifth

Fifth Way. Near this last Farmer lived another, that also, in 1740, had a poor Crop of Turneps on a thirty Acre inclosed Field, that was a gravelly, loamy Soil, and, after the Turneps were eaten off, he directly dunged and plowed the same Ground with the double Plough of *Hertfordshire*, and sowed it with Wheat-seed in Two-bout Lands, a little before *Christmas*; and, as it rised a little clotty, a Man, with only one Horse, drawed a single Harrow along every Stitch or Bout-land, once in a Place, to fine the Earth, and cover the Seed the better, for the Ridge-part of the Land lay a little hollow; and thus, by the Horses going along one Thorough, and the Man walking in the other, he guided the Horse with one Hand, and the Harrow by a Rope with the other, to keep it always on the Ridge of the Stitch, which smoothed the Top of it, and, by the whole Management, there ensued a very good Crop of Wheat. I must own, I have wrote several excellent Uses that this double Plough is put to; among the rest, it is common with us to sow Tilth-lands with Wheat by it. But I never knew this Fancy put in Execution, before this Farmer did it, of sowing Wheat with it, directly after Turneps. However, these Ways of sowing Wheat on Barley, Pea, and Wheat-stubbles, is practised every Year by many in lightish Soils, especially when there is a Prospect, as I have said, of Wheat selling well; and sometimes it happens, where a good full Crop has grown before, and the Ground was well dunged and plowed, that a second Wheat Crop has exceeded the last in Goodness. According to an usual Saying or Maxim, that the late ingenious hospitable Mr. *Johnson*, of *Ivinghoe-Aston*, frequently observed, when he said, That he found better Success when he sowed Wheat on a Wheat-stubble, than when he sowed Wheat on a Barley-stubble; because

Bar-

Barley peels or impoveriſhes the Ground, and looſens it more than Wheat, and therefore Wheat will grow better, and ſtand faſter after Wheat, than after Barley.

A Gardener's Way of ſowing Wheat after Peaſe or Beans. This Man never makes a regular Fallow (for, as he ſays, he cannot afford to pay a Year's Rent for unſown Land) therefore, when he has gathered off his green Peaſcods, or green Broad-Beans that were ſown in Drills, or after his Seed-Beans have been cut up, he directly plows his gravelly, loamy Field into Broad-lands; and, after it has lain a little Time, he harrows all plain, then ſpreads over his rotten Dung, and plows and ſows it with Wheat in Two-bout or Broad-lands; thus, with only two Plowings, his Ground is made full fine enough, becauſe he drew the Horſe-break twice, at leaſt, and hand-houghed afterwards, between his drilled Peaſe or Beans, which kept down the Growth of Weeds, and preſerved his Land in a ſweet clean Condition, ready for ſowing it with Wheat, or other Grain, after only one or two Plowings.

How Wheat ſowed itſelf, and became a very good Crop. A Ten-acre Field of Wheat growing near *Buſby-Common*, by *Watford*, in the Year 1739, being juſt ripe enough to reap, moſt of it was ſpoiled by a Hail Storm, that cut off the greateſt Part of the Ears, and beat out much of the Wheat of thoſe left ſtanding; inſomuch that the Farmer ſaved but twenty Buſhels of the whole Crop, and that was chiefly got out of the Ears which were picked up and thraſhed. Upon this, he turned his Horſes, Cows, and Swine, into the ſame Field, that maintained them a Week, or more; when he plowed the whole up into Broad-lands, by plowing ſeveral of his Four-bout Lands into one Broad-land, and ſo on, till all was finiſh-

ed,

ed, and then he harrowed the Ground all plain and left it, in Hopes that the ſcattered Corn might ſerve as ſo much Seed ſown, for producing another ſucceeding Crop of Wheat: Accordingly it did, for he enjoyed a plentiful one the following Harveſt. This Misfortune, by the Hail-ſtorm, proved general, throughout this particular Neighbourhood; but I did not hear that any other Farmer acted the good Huſbandman ſo well as this.

To ſow Wheat in ſandy Land Stubbles. In ſome Parts of *Norfolk*, I ſaw ſuch heavy ſandy Ground, that forces them to make a regular Fallow, and ſow their Wheat in two or three Bout-lands, as is done elſewhere in ſtiffer Soils; and this they perform with a Foot-plough, ſaying they can lay this Earth up in this Poſture better, than with a Wheel Jocky-plough. Others, in Sands ſomething lighter, uſe no other than this laſt Wheel-plough, and ſow their Wheat either in Two-bout Stitches, or Broad-lands. But, where their Sands are the lighteſt of all others, they ſow nothing but Turneps, *French* Wheat, or Barley, in Broad-lands; for, if they were to raiſe this Earth higher, a great deal would be apt to blow from one Ground to another. Where their Land is not too light and dry, they ſow Clover, and, after it has lain a Year, in this Month they give it one Plowing, and harrow in Wheat. On the twenty fourth Day of this Month, I ſaw a Farmer plow in his *French* or Buck-wheat, with a wheel-broad-pointed Plough, as ſhallow as poſſible, and then immediately a Foot-plough followed, and threw up a deeper Earth upon the laſt, for here they had a ſtiff, deep, ſandy Land, on which they harrowed in Wheat-ſeed. Others ſow Turneps pretty thick, to dreſs the Ground for Wheat or Barley, by plowing in the Turneps to lie and rot.

CHAP. IV.

Of ſowing common Wheat, on a Dreſſing of French *Wheat, Clover*, &c.

To ſow common Wheat on a Dreſſing of French *Wheat.* If your *French* or Buck-wheat is got into Bloom, you may give it one Plowing, and let it lie two or three Weeks to rot in the Ground, for plowing it up again; and, on Occaſion, a third Time, for ſowing common Wheat in Broad-lands or Stitches. But be ſure do not let it be in full Bloom before you do this, leſt it become ſeedy, and grow afterwards; for, if it is too ripe, the Stalks will hardly rot ſoon enough for this Purpoſe. Or you may mow it half Way, and then plow the cut Stalks and Stubble in together, for harrowing two or three Buſhels of Wheat-ſeed in. Or you may harrow in common Wheat, as ſoon as you have plowed in your *French* Wheat; and manage it as I have ſhewn in my former Works. Or the ſame may be done for a Rye-Crop. It is a good Way to improve Gravels and ſandy Grounds, in particular, by thus uſing of *French* Wheat.

To ſow common Wheat on plowed in Clover. This is practiſed but by few Farmers, becauſe an Acre of Clover may be worth four or five Pounds, which, if plowed in as a Dreſſing, may prove too extravagant, by Reaſon twenty Shillings may manure enough to anſwer the ſame Purpoſe. If this Piece of Huſbandry is to be performed by Clover, it ſhould be done by the ſecond Crop, which may be high enough in laſt Month for Plowing in, that it may lie and rot two or three Weeks for harrowing common Wheat on the ſame in *September*; and if your Soil is a Gravel, or of the pebbly Sort, or a

ſandy

ſandy Loam, it may anſwer extreme well, as I have obſerved.

To ſow common Wheat or Rye on plowed in Thetches. By the ſame Rule, green Thetches may be plowed in to anſwer extreme well: For which, the Seed ſhould be ſown in *April* or *May*, that they may be of a right Height in laſt Month: When ſo, they ſhould be plowed in to lie, ferment, and rot, two, three, or more Weeks, before common Wheat or Rye is harrowed in upon the ſame in this Month; and then ſuch Management may turn to great Profit, and eſpecially where the Ground is a raſhy Gravel, or other dry hungry Soil. But ſome turn in their Horſes or Cows firſt, to bite off the Heads of the Thetches, and then plow the reſt in.

To ſow common Wheat on one Plowing up of Sward-Ground with two Ploughs. This has been done, and therefore may be done again, and beſt of all with Two-foot Ploughs, becauſe their Shares are broad-pointed, and thus made to plow as ſhallow as poſſible; for it is abſolutely neceſſary in this Caſe ſo to do with the firſt Plough, that the ſecond Foot-plough may follow, and have the more Mould to throw over the Turf. When all is done, ſow three Buſhels of prepared pirky Wheat-ſeed on each Acre, and harrow it in long-ways and croſs-ways. For this Work, our Wheel-plough is improper to be uſed either as a firſt or ſecond Plough. If as a firſt, its pecked Share will go too deep; if as a ſecond, the Land-wheel being obliged to go on the Turf, its Share is kept too high to go deep enough to turn over a ſufficient Quantity of Mould.

CHAP. V.

Of ſowing Wheat on ſtiff Chilturn *Tilth-Lands, and preparing others to be ſown the next Month.*

Of Plowing and Sowing Wheat in Chilturn *Tilth-Grounds.* As in the Vales they do not begin ſowing Wheat till *Michaelmas*, particularly in that of *Ayleſbury*, we Farmers in the *Chilturn*, or hilly, incloſed Country, make it a Rule, to begin ſowing our flat, cold, ſtiff Loams and Clays, a Fortnight before, and hold it till a Fortnight after *Michaelmas*, becauſe of their wettiſh chilly Nature, that requires an early Cover, to enable them the better to reſiſt the Severity of froſty Winters; for, though our ſtiff, flat Grounds lies higher, and nearer *London*, it is of a poorer and colder Nature than Vale Soils, which are ſituated ſo low as to lie warmer, and the more for their Earth being of a marly Nature; therefore we are obliged to give our hungry ſtiff Lands more Plowings and more Dreſſings than they do theirs. In order, therefore, to ſow theſe in our *Chilturn* ſtiff Soils early, we plow them the latter End of the laſt or the Beginning of this Month, as the very laſt Time but one for ſowing them with Wheat; and this, becauſe they ſhould have a Week, two, or three, to lie before Sowing. Now this is done that the powdered Earth may lie the more compact together, and acquire a heavy Body. Then, when it is ſown with Wheat, it will lie the cloſer about the Kernel's Body; otherways, if the Earth is too light and dry when ſown, the Seed will lie looſe in it, and be the more expoſed to canker, be eat by Worms, devoured by Birds, and fall down before Harveſt. This is rather more obſerved in Vales, for here,

where

where they have hardly a Stone, if they ſow their Wheat, while the Earth lies in a hollow powdered Condition, they cannot cover their Seed near ſo well and ſecure, as if it lay a Week, two, or three, to get a cloſer heavier Body, notwithſtanding their Plowing it in. Another Reaſon, for ſowing Wheat later than when the Ground is but juſt plowed, is, becauſe if it is ſown ſo ſoon in a light, duſty Condition, it is a general Notion, that it occaſions the Breed of Poppy or red Weed, which is a moſt deſtructive Sort.

To ſow Wheat in two Bout-lands or four thorough Stitches. Our Tilth, flat Loams, and Clays are generally ſown in this Poſture, becauſe this Poſition lays the Mould higher than it lay before in Broad-lands, with a ſmall Gutter on each Side every Stitch, for draining off the Water; and yet are not made ſo deep but that the Wheat grows in the ſame as well as on the Stitch or Ridge, which is an Advantage that the Vale Ridge-land deep-ſide Thoroughs do not enjoy; nor do thoſe three and four Bout-lands or Side-thoroughs, that are commonly made about *Acton* and ſeveral other Places in *Middleſex*, for theſe are forced to be made very deep, to receive a great deal of Water to keep the Land dry. But there are other Advantages belonging to this particular Operation; as Clays and moiſt Loams are chiefly plowed after this Mode, and ſowed in the *Chilturn* Country, the high lying of the Earth gives the Sun, and Air, and Rain the greateſt Influence on it, ſo as to meliorate it, and turn ſuch a clayey Soil into a loamy Nature in ſome Degree; which on the Contrary, when lain in Broad-lands, the under Earth of Clay draws and feeds on the upper loamy Part, and helps to convert it into a clayey Nature. This is a Conſideration of great Importance, for, what is more barren than a red and yellow Clay,

or more fertile than a Loam? In this Poſture the Wheat not only ſtands dry, but much firmer than when harrowed in on Broad-lands, againſt the Violence of Winds and Rains; is ſecured better from the Fowls and the Severity of great Froſts and Droughts; is a ſurer Guide for the Reapers to take every Man his due Share of Work; and, laſtly, gives the Wheat-Ears an Opportunity to lie hollow, after Reaping, from the Damage of Wets, and expoſes them to the Sun more than Broad-lands can do.

To ſow Wheat with the Three-wheel Drill-plough. This excellent Plough, lately invented, ſeems to ſupply in a great Meaſure Mr. *Tull*'s Machines for ſowing Corn in Drills, but at a vaſt cheaper Rate, and with Abundance of leſs Trouble, and with much more Aſſurance of a Crop; however, I am of Opinion, that this ſerviceable Three-wheel Plough was firſt contrived from the Models of the aforeſaid ingenious Gentleman's Mathematical Sowing and Hough-ploughs, for this one Drill-plough can be and is often ſo ordered as to ſupply both theſe Uſes. This Drill-plough performs its Work in *Chilturn*, gravelly, chalky, ſandy, and loamy Soils, and even in dry, ſtiff Grounds; and, in ſhort, wherever a Drill can be conveniently made, after they have been reduced and brought into a fine Mould by other common Ploughs; then in this Month we ſow Wheat-ſeed out of it in our dry Loams, by putting near a Peck into the Hopper of the Plough, which drops regularly out of it into a Drill that the Share makes, by Means of a ſmall, round, wooden, notched Box, about ſix Inches long, and three or four broad, that is turned in an exact Manner by a long iron Spindle, that is alſo turned by a third Wheel, ſo that this Spindle ſerves as an Axle-tree both to the third Wheel and Box, and, as the Plough is drawn along,

along, the Drill may be covered by two Sticks fixed to the Arſe of the Plough, made ſo, as to cloſe the Drill and leave a ſmall Ridge of Earth upon the Corn; or it may be done by a Hand-hough or Harrow, by which Operation this profitable Plough makes a Drill, ſows it, and cloſes it at the ſame Time; then when the Plough comes to the End of a Drill, and to turn round at the Land's End, the Ploughman heaves up the hind Part, and the third Wheel is kept off the Ground, ſo that the Seed is all the While ſtopped from falling out, till it touches the Earth and works again. Thus the Wheat-ſeed is ſown in Drills, at ten, twelve, or fourteen Inches aſunder, which afterwards is to be hough'd with *Dutch* Hand-houghs (as I ſhall give an Account of in proper Months) for here the Horſe-break has no Room to be drawn between the Rows of Corn to kill the Weeds. Thus Wheat, Rye, Barley, Peaſe, or Beans, *&c.* may be conſtantly ſowed every Year, without making a Fallow, or loſing every Third; but then a proper Box muſt be lodged under the Hopper, according to the Corn that is to be ſown.

To ſow Wheat in Drills without the Drill-plough. This is a Make-ſhift, and a very irregular uncertain Way of ſowing Wheat, but it may be done, thus: In the *Chilturn* Country of *Hertford-ſhire*, we uſe three Sorts of Wheel-ploughs, the *Fallow-plough*, the *Pea Stitch-plough*, and the *Wheat Stitch-plough*; now, as this laſt is the narroweſt, it will make a Drill, or Furrow, ready for Sowing, and then a Seedſman muſt follow and ſow the Wheat out of his Hand, which he muſt do pretty thick, if he deſigns to have a Crop of Value. I put a Farmer in the Way of doing this, and ſowed three or four Drills myſelf; but, after I was gone, an old *Virgilian* Diſciple, coming by, told

told the Sower, he ſowed the Seed too thick to Waſte; but afterwards the Corn diſcovered who was in the Right. When all is ſown, the Drill may be covered by drawing light Harrows long-ways once in a Place, or otherways, as the Owner pleaſes. If you have not a two-wheel Plough, it may be done by a narrow Foot-plough, or any of the One-wheel Ploughs; but whether Wheat is ſown by the Drill-plough, or other Plough, there is a very great Advantage will accrue to all Corn ſown in this Manner, if a certain Manure is made Uſe of, which I have experienced among drilled Peaſe that I ſowed in *March* before ſome Perſons, who deſired that three Rows or Drills might be left unmanured for a Trial; I acquieſced, and it was not long before they had a glaring Proof of the Difference. If your Ground is not truly fine, which it ought to be for this Buſineſs, then, I ſay, you are obliged to ſow the Wheat in Drills at fourteen Inches aſunder; for, the rougher the Earth, the farther Diſtance the Drills. But, if the Ground is very fine, ten Inches are enough; for, when the Ground is thus fine and hollow, as the Seed falls out of the Hopper, the Earth will fall in on each Side, and fill up the Drill and Thorough with little or no farther Trouble.

To ſow Wheat with a One-foot Plough and One-wheel Plough. This we commonly do by plowing the Ground croſs the laſt Broad-lands into two Bout-lands or Stitches, eleven whereof take up two Poles of Ground; and this by the Help of either a ſingle Wheel-plough, or better with two Wheel-ploughs, that are each of them drawn by two Horſes a-breaſt; but the beſt Way of all others is, to draw out with the Foot-plough, and bent up with the Wheel-plough, becauſe the Foot-plough does the firſt Buſineſs better than the Wheel-plough, for which, one Sower ſupplies both Ploughs,

Ploughs, by ſpraining the Seed in four Thoroughs, out of his Hand.

To ſow Wheat by the double Plough. This Plough is much approved by ſome, and ſlighted by others; the latter, for not having a proper Soil, or Horſes ſufficient for its Working; the former, for its many valuable Properties, as I am going to ſhew, *viz.* This ſerviceable Plough will make a four-thorough Stitch at one Bout; or, to be more intelligible, by drawing it with four Horſes, that go double, once up and down, or forwards and backwards; and yet one Sower will ſupply it, by which there are ſeveral Advantages belonging to it, that the ſingle has not; for this double one will plow ſmaller Thoroughs, and ſhallower, than the ſingle Plough can; keep the Earth from tumbling down much better, and lay the Work evener; beſides which, this double Plough will diſpatch a great deal of Work in a little Time, and with a great deal of more Safety, than two ſingle Ploughs, becauſe, in Caſe great Rains ſhould fall in Time of Sowing, it may oblige the Farmer to give out before the drawn out Thoroughs can be hented up, and then the Crop will be in great Danger of being loſt. Whereas this double Plough does its Work as it goes, and thus has compleated two Acres of dry Loams, ſtiff Lands, or gravelly, or chalky, or ſandy Loams in one Day. To this I add, that the double Plough is excellent alſo for plowing Tilth-grounds, and making them in the fineſt Condition, as when Wheat is to be ſown off them in two Bout-lands; or, where Barley, Turneps, or other Grain are to be ſown in Tilth-earths Broad-land Faſhion, where, with four Horſes, it will diſpatch double the Ground that a ſingle Plough can, and cauſe the Roots of ſuch Grain to flouriſh very much, becauſe the Thoroughs, that this Plough makes, are ſmaller than thoſe made by

the ſingle Plough, which turns up a large Thorough, that is apt to lie ſo hard and heavy on the Corn, as to bury ſome, and ſtunt the reſt; whereas the Earth of the ſmall Thoroughs, being looſer and lighter, gives the tender thready Fibres of the Corn-roots Liberty of coming out and making a ſwift Growth. And, as there are two Sorts of this double Plough of late made, a ſtrong, large, heavy one, and a narrow lighter one; I have heard a Ploughman ſay, he had as live hold the latter one as a ſingle Plough. But this double Plough is not fit to be uſed in Vale Ridge-lands, nor in ſtiff Clays, in two ſtony Ground, nor at Fallow-ſeaſon, nor, in ſhort, in any clotty Ground, becauſe, as the two Shares follow one another very cloſe, they will drive ſuch Earth in a Heap; but, where the Ground is fine, it is a valuable Inſtrument, for it will ſave both Horſe and Man's Labour to the Farmer's great Advantage, if the Ploughman underſtands its Working. But, for more of the double Plough, ſee the Month of *April*, where a large Account is given of the Make and Uſes of this ſerviceable Inſtrument.

To ſow Wheat that it may be eaten as a Crop of Graſs in November, *or later, to great Advantage.* To do this unuſual Thing, the Time of Sowing the Soil, and the Dreſſing, or Manuring, are to be conſidered, or elſe it is a Chance, if we do not do more Harm than Good. Therefore, in ſuch an Attempt, the Land ought to be a gravelly, chalky, ſandy, or dry Loam, or a Soil that has a Share of one or other of them. In the next Place, the Time of Sowing muſt be obſerved, and that ſhould be in this Month, that the Wheat may have an early, warm Seaſon, to make it come up and grow a-pace. To this I add, that the Dreſſing ſhould be of the hot Sort, as good rotten Horſe-dung, Hog-dung, Rags, Horn or Glover's Shavings,

Shavings, Oil-cake Powder, Pigeon, Dog, Hen, or Rabbit-dung, or Soot, or Lime, or ſuch like, which will force on a feeding Head in *November* or quickly after, for keeping your Horſes, Cows, or Sheep, altogether abroad ſome Time, when all other green Ware is eaten up; but, notwithſtanding this great Conveniency, there lies a heavy Objection againſt this Management, and that is, that the ſecond Shoot of the Wheat-blades will be weaker than the firſt, and conſequently bring forth a ſmaller Ear and a leſſer-bodied Corn, give Room for Weeds to grow rampant, and, if the Winter and Spring ſhould come in ſudden and ſevere, it may chance to kill ſuch cloſe-bitten Wheat; but, to prevent this Misfortune, a Farmer at *Dagnal*, near me, acted thus: Of all his Fields, he dared not to ſow his Wheat with this Intent, but in only one, and that was a chalky Loam, the leaſt ſubject to Weeds of any; here he ſowed his Wheat early in this Month, and, when it was got pretty well into a Head in *October*, he ſowed, all over it, Soot from *London*, which brought on the ſpeedy Growth of a great deal of blady Wheat, which he eat off in *November* (when moſt other Graſſes were cleared off the Ground) with his Sheep, that ſo dreſſed the ſame with their Dung and Urine, as to cauſe a quick Vegetation, and a ſtrong branching Crop to ſucceed, and ſtand upright, when, perhaps, in a wet, hot Summer, others may fall down and be moſt of them ſpoiled.

How a Yeoman ſowed his Field with Wheat, and mowed it for Graſs, to a great Diſadvantage. This Perſon was Owner of a plowed brave Farm of about an Hundred a Year, in *Hertfordſhire*, but ſo obſtinate, that, contrary to all Advice, he would purſue his own wrong Opinion; accordingly he ſowed a four Acre Field with Wheat that was a

Lay of Clover, which he gave one Plowing, and harrowed in his Seed; now his Seed was mow-burnt, ſo that little of it grew, and therefore gave the Weed and the Roots of the plowed in Clover full Room to grow; and they did, to the Loſs of almoſt all the Crop of Wheat, which obliged him to mow Wheat and Weeds together and make Hay of them.

How a Wheat-crop was loſt by Folding. As ſoon as a Farmer had harrowed in his Wheat on Broad-lands, in this Month, he run his Fold over it inſtead of a Manure, but, the Weather coming in dry, the Sheep pawed up the Seed and ſpoiled a great deal of it; in a little Time afterwards great Quantities of Rain fell, which cauſed the reſt to ſpire, but, the ignorant Farmer continuing the Fold, it ſo damaged the remaining Seed, that at Harveſt the Crop was good for little. Where a great Flock of Sheep is kept, a Field is ſoon run over, and this Damage prevented; but, where the Flock is ſmall, the right Way is to ſow it by half Acre Pieces, and fold by Degrees, keeping the Sheep off the grown Wheat by a Partition of Hurdles, as I have before obſerved.

Sorts of Wheat-ſeed generally ſown in the Chilturn *Country.* In the *Chilturn* Country, both in its incloſed and open Fields, we ſow ſeveral Sorts of Wheat, becauſe we have Diverſity of Soils, and are therefore capacitated to ſow Egg-ſhell Wheat, Pirk, *Lammas*, and *Dugdale* Wheats. The firſt is reckoned the beſt of all others, for yielding the whiteſt Flour, and making the beſt of Bread; the *Lammas* Sorts are certainly the next beſt; the Pirks the third, and the bearded Wheats the worſt. Now all theſe Sorts may be ſown here with great Succeſs in their proper Soils. The Egg-ſhell Wheat will grow well in a loamy Earth,

and

and in gravelly, chalky, and ſandy Loams. The *Lammas* Sorts in ſtiffer Soils. The Pirks in gravelly, chalky, ſandy, or ſtiff Lands. The bearded Wheat alſo in ſtiff Grounds will grow beſt. There are ſeveral other Sorts of Wheat, but we ſow none but theſe I have here mentioned. And of theſe according to the following Account.

The great Damage that has and may happen by ſowing underline or leaſed Wheat-ſeed. I take this to be a moſt neceſſary Article, becauſe it is deſigned to convince thoſe obſtinate ignorant Farmers of their great and long accuſtomed Error, in which they have remained to this Day; that will againſt all Information go on buying and ſowing leaſed Wheat-ſeed, to their no little Prejudice, and to the Damage of the Nation in general. And of this I ſhall be more particular, becauſe almoſt all Authors have paſſed over this Article, as if it did not concern their Pens, or rather (except one or two) becauſe they had no Notion of the Matter, for I do not know how they ſhould, and the very topping Farmers have not; though it is a Matter of the greateſt Importance in Farming, as I am going to ſhew: Firſt, the Company of Leaſers or Gleaners are compoſed of Women and Children, who promiſcuouſly proceed in the gleaning of a Field of Wheat; and, as they enjoy this Opportunity but one Month in the Year, and on which the chief Part of many poor Families Subſiſtence depends the eleven Months after, every diligent Hand makes all the Haſte poſſible to pick up as much as they can; and here, their Eagerneſs is employed by each one's endeavouring to get more than another, and in this haſty Proceeding they take up good and bad, great and ſmall Ears, the ſmutty and the Pepper Wheat-ear. Now, as ſoon as Harveſt is ended, happy ſhe thinks herſelf, who can get her leaſed Wheat thraſhed out ſooneſt, in order to ſell it for Seed, as it has been

been the Cuſtom Time out of Mind; and no leſs are the Farmers eager of buying it up on theſe three Accounts; *Firſt*, Becauſe they expect it to be dry, when the common Crops are got in wettiſh; for, as gleaned Wheat is tied up in ſmall Handfuls, the Leaſers commonly bring them out and dry them in the Sun; and this they do every Year, by Reaſon, in the drieſt Seaſons, they leaſe it in a dewy Morning, which damages the Grain, but is thus recovered. *Secondly*, Becauſe Farmers expect this gleaned Wheat to be free from Soil, or the Foulneſs of Weeds, which is avoided by the Leaſers picking up only the pure Ears. *Thirdly*, Becauſe there is a Mixture of ſeveral Sorts of Wheat, which is thought to produce the better Crop. To theſe three Articles I conſent, as being Matter of Fact. But, after all this, gleaned Wheat is not fit to ſow, becauſe there is always among it a great Number of underline Corns or half grown Ears, which, if ſown, will bring forth abortive Dwarf-Kernels, that could not grow to Perfection, becauſe the large Stalks and Ears, drawing the greater Share of the Earth's Goodneſs, impoveriſhes its weak Neighbour by this, and the Hanging of its taller Head over it. Now, this diminutive lean Kernel, when ſown again, through the Imbecillity of its Body and Want of a ſufficient radical Subſtance, cannot grow into a large ſound Ear, but, after it has ſpent its little Virtue in the green Growth, it often turns to a ſmutty or Pepper-Wheat-Ear, which are both not only deprived of a ſerviceable floury Subſtance, but are pernicious to the reſt of the ſound Wheat, becauſe it taints the Flour with its nauſeous Smell and Taſte, and at the ſame Time adds to it a black darkiſh Colour, to the great Loſs of the Farmer, who cannot ſell ſuch Grain for ſometimes near the Price of ſound Wheat; beſides, in ſmutty Ears, there often

ten grown ſound Kernels in Appearance, yet turn to Smut, if ſown, as they often are, by being picked up by Leaſers, and thus come to be ſown for another Crop.

The particular Caſe of a Farmer who bought and ſowed underline Wheat-ſeed. This Man lives about a Mile and a half from me, rents about an Hundred a Year, and is reckoned one of the moſt cunning Shavers or Contrivers in the Country he lives in; yet was ſo eager in this Month of buying up leaſed or gleaned Wheat, that he not only purchaſed what he could get in his own Pariſh, but commiſſioned a Friend to do the ſame in another; accordingly he ſowed it, and the Conſequence was this; that, as he ſowed ſuch, he reaped ſuch; for he had a prodigious deal of ſmutty and Pepper-wheat, and underline Ears, when his next Neighbours had none, that ſowed ſound, bold, plump-bodied Kernels, prepared after my new and moſt valuable Receipt, whoſe Efficacy was proved this Year in particular, becauſe moſt Crops of Wheat were touched with ſmutty or Pepper-wheat, occaſioned chiefly by the preceding violent froſty Winter, and long dry following Seaſon, even a great deal of that Wheat which was brined and limed in the beſt Manner. Now my Wheat-ſeed was not ſoaked in any Liquor, but only mixed with a certain Compoſition the ſame Morning the Wheat was ſown; which is ſo cheap, that it is not half the Coſt, and, I may ſafely ſay, not a Quarter the Trouble Brining is, but much ſurer, for more than one Reaſon: For, *Firſt*, This Mixture prevents in a great Degree the Damage of Worms, Slugs, and Grubs, which often deſtroy Crops of Wheat by gnawing the Kernels in the Ground, or the young Blade that grows from them. *Secondly*, It faſtens ſuch a large Coat of Lime and Salt to the Kernel's Body, that ſecures it againſt Chills, and adds a great Fertility to its

its Growth. *Thirdly*, In Caſe of a Diſappointment of Sowing, the Kernels will not ſpire near ſo ſoon as when ſoaked in Brine, and therefore many Buſhels of Seed may be preſerved that would otherwiſe be loſt. *Fourthly*, This Mixture deſtroys the Growth of many Kernels that would, in the common Way of preparing Seed, become ſmutty or Pepper-wheat, and at the ſame Time nouriſhes all thoſe Corns that have ſound Bodies; but more of this in next Month. In the mean Time I here add, that leaſed underline Wheat-ſeed has a ſmall Body of Flour, and the leſs Body the leſs Spirit; therefore theſe Kernels, as I ſaid, produce a dwindling Ear at beſt. It is true that they ſhoot the firſt, but cannot maintain their Growth in Perfection, and therefore are the firſt that are ſtruck or blighted, as well as become ſmutty or Pepper-wheat. Surely then, that Farmer, that ſows ſuch ſmall underline Seed, after he has read theſe Lines, muſt act againſt downright Reaſon, by ſuffering himſelf to be no otherwiſe convinced, than by the Loſs that is impending on ſuch a bad Piece of Huſbandry. I am ſenſible that ſome truſt to the Richneſs of their Soil, to prevent the Misfortune I am writing of, thinking, that this will enlarge the ſmall Kernel to a proper Bigneſs; but, where this hits once, it fails often, though both Ground and Weather happen in their Favour. This therefore is to acquaint any Perſons that have a Mind to ſend to me for Wheat-ſeed, that I can furniſh them with the largeſt Sort from off almoſt any Soil they ſhall deſire.

The late Mr. Belfield *of* Studham, *in* Hertfordſhire, *his conſtant Way of preparing Wheat-ſeed for Sowing.* This Yeoman was reputed to be an excellent Manager of the large Farm he owned and occupied, and, amongſt the reſt of his good Oeconomy, he practiſed the following Method of preparing

paring his Wheat-ſeed for Sowing, and declared, he never in all his Life had a ſmutty Crop of Wheat from it —He put as much Salt into Mudgel-hole Water, that made it ſo ſtrong a Brine as to ſwim an Egg; in this Liquor he ſtirred his Wheat-ſeed one Hour, to make the light Kernels ſwim and be taken out, and to tincture the Kernels with the Vertues of the Brine. Then he let the Tap run, and put the Seed on a Floor in the Evening to lie in a Heap all Night; the next Morning he limed and ſowed it.—But ſtill this Way is not ſo ſure and good as that I follow myſelf, which, as I ſaid before, I intend to publiſh in the Month of *October*.

How a Farmer loſt his Wheat-crop, though he brined his Seed. About the Year 1714, one *Joſhua Threader*, a Farmer in *Hempſtead* Pariſh, ſoaked his Wheat-ſeed in a ſtrong Brine, all Night, and ſkimmed off the light Kernels. In the Morning following he limed it, and carried it to the Field to ſow; but, a great Rain falling, they were obliged to carry the Seed Home again, and, letting it lie in a Sack all the Day and Night following, it ſo heated, that the Lime and Brine eat off moſt of the Skin of the Kernels; for, though it was ſowed as ſoon as they could, yet, at Harveſt, there were not fifteen Sheaves on an Acre.

Another Caſe of the Loſs of a Wheat-crop by wrong managing the Seed. About the Year 1704, a Man, that had been all his Life before brought up to the Plough, ſuffered great Loſs by miſmanaging his Wheat-ſeed, thus: Marrying a Widow, he became Maſter of a brave incloſed Farm in the *Chilturn* Country of about eighty Pounds a Year, and, though now his own Land, he could hardly live on it at firſt; and one main Thing that cauſed his Misfortune was, his preparing his Wheat-

ſeed ſo wrong that he had ſmutty Crops for three Years together; but in one of the three he made an Alteration to a farther worſe Purpoſe, for he put Salt and Piſs into Mudgel-water, which, becauſe the Weather proved rainy, he let it ſtand in a Tub a Week together; this, being got extreme ſtrong, he let his Seed remain one whole Night in it, and next Morning limed and ſowed it; but, as it peeled great Part of the Skin from off the Kernels Bodies, he loſt almoſt all his Wheat-crop by it; upon this he changed his Seed and clamped his Dung, which he had not done before, and altered his Way of preparing his Seed thus: — He put his Wheat on the Ground in a Morning betimes, and ſprinkled it all over with Piſs; when it was well wetted, he limed and ſowed it. By this Means he had no ſmutty Wheat till the two very dry Summers of 1741 and 1742, when he had a great deal to his no little Prejudice; and, being an Acquaintance of mine, I ſhewed him my growing Wheat in the Month of *July*, 1742, and defied him to find a ſmutty Ear in it, in order to perſuade him to alter his old erroneous Way and practiſe mine, which he readily conſented to, notwithſtanding his being free from Smut for above thirty Years together. On this Account I am of Mr. *Tull*'s Opinion, that Urine is very pernicious to Wheat-ſeed, as he obſerves in his large *Horſe-boughing* Book, at Page 144, where he ſays, ——— "If Seed be "ſoaked in Urine, it will not grow; or, if only "ſprinkled with it, it will moſt of it die, unleſs "planted preſently."

CHAP.

CHAP. VI.

To ſow Wheat about Buſhy.

THE wrong and right Way of ſowing Wheat about Buſhy. In this Part of *Hertfordſhire*, they prepare their Ground and ſow their Wheat in a quite different Manner to what we do in the Weſtern Parts of *Hertfordſhire*, becauſe here they lie rather wetter, and their Soil is more of a clayey Loam than ours, which obliges them to ſow their Wheat in three or four Bout-lands; and it is obſervable, that they are, for the moſt Part, ſuch indifferent Mow-men and Huſbandmen, that they ſeldom come by a true Tilth-earth for a Wheat-crop. Now one main Reaſon, why they have not their Ground in good Order, is, becauſe they do not hack or comb it in the Stirree-ſeaſons, as they might do (if they would but ſuffer Reaſon to take Place of Prejudice) for this is one of the beſt Methods that is, to bring ſour Ground into a fine ſweet Tilth. In the Year 1740, one of my Dayſmen, being in *Buſhy* Pariſh, perſuaded one of their Farmers to hack his three Bout-lands acroſs, and he did ſo with his broad Swing-plough, which is the only Sort in Uſe here, without firſt filling in the Thoroughs; the next Time he harrowed all down plain, and hacked the ſame Ground again croſs the laſt Way, which ſo tore the Earth, and expoſed the Twitch or Couch-graſs, that they eaſily gathered it off; next Time they plowed acroſs and ſowed the Field with Wheat, by ſpraining or ſtraining it out of a Man's Hand after the Plough, and plowed it in three Bout-lands, without harrowing the Ground afterwards; and it proved an excellent Crop. Whereas their common Way is

to plow the Land but once in a Summer croſs-ways into Broad-lands, and all the reſt in three Bout-lands; which is the chief Reaſon why their Ground is over-run with Twitch or Couch-graſs, the moſt of any, to the great Damage of their Wheat-crops.

CHAP. VII.

To ſow Wheat about Edgeware *and* Acton, *in* Middleſex.

PLOWING *and ſowing Wheat about* Acton *and other Places in* Middleſex. Here they commonly fallow in four Bout-lands, the firſt Sirree they plow the ſame Way, by making a Ridge where the Henting, or Water-thorough, was before; the next Operation is performed by drawing their great ſingle Drag-harrow (containing ſeven Beams of ſeven Tines in each Beam) by ſeven or eight Horſes, which levels the Ground, and tears up the Twitch or Couch-graſs that is gathered up into Heaps and burnt. The third Plowing is done by plowing all the Lands acroſs into four Bout-lands, and, if it is not fine enough, they plow it twice more, in the ſame Manner before they ſow it; and, when they ſow it, they ſow Broad-caſt and plow all in. Now, it may be wondered why theſe Farmers ſow all their Wheat Broad-caſt, ſince there is a great Water-thorough to be left between their Bout-lands, by which near a fifth Part or more of their Ground lies vacant, for little or no Wheat grows here; but, though they loſe a great Deal of idle Ground by this Means, yet they loſe *little* or no Seed; becauſe their Swing-plough (which with a *Drill*-

a Drill-plough for Peaſe is all they uſe here) gathers up the Seed, when it makes this Water-thorough, and lays it to the Bout-lands. However, I muſt ſay, it is my Opinion, that theſe Farmers are wrong in not hacking or ſingle bouting their Ground acroſs, as I have before obſerved. Here they ſow altogether the red *Lammas* Wheat-ſeed, for the Sake of its large and profitable Straw, which they ſell in Truſſes at *London*.

CHAP. VIII.

Of the Nature, Prevention, and Cure of Smuttineſs in Wheat, &c.

SEVERAL Caſes which prove how Wheat becomes ſmutty, with ſome Hints concerning Pepper-wheat. When Wheat is in its green Ear, the ſmutty Ears may be diſcovered as they ſtand, but more as they are nearer being ripe, and this amongſt other ſound Ears, by their black Kernels, on rubbing which, a black Powder will fly out and ſtink. This Sickneſs in Wheat happens ſometimes to only one Side of the Ear, when the other Parts remain ſeemingly ſound; as was once the Caſe of a whole Field of Wheat, near *Hazlemere* in *Surry*, where only the Weſt Side of the Ears was ſmutty, and the reſt free throughout the Field—— Which ſeemingly ſhews the Diſeaſe to be occaſioned by infectious Wind.

Caſe the ſecond. A Man having but one Field, it was ſown for him with naked Wheat-ſeed, by a neighbouring Farmer, who, wanting a little more to finiſh the Field, ſent for ſome of his own that was brined and limed. The latter proved ſmutty, but

but the former clear, though both were ſown in one Day.—The unbrined might be found Seed, and the brined unſound.

Caſe the third. A Farmer in *Surry* being obliged to cart over one Field to come at another, it happened that all the Field of Wheat proved ſound and clear of Smut at Harveſt, except that Part which had been carted over, and that yielded a great deal of ſmutty Wheat.——This ſeems to indicate that a bad Tilth occaſioned the Misfortune.

Caſe the fourth. A Field of Turneps, being half eaten off with Sheep between *Alihallantide* and *Chriſtmas*, was then plowed up and ſown with Wheat. The other Half, that was not eaten off till *Candlemas*, was alſo plowed and ſown with the very ſame Seed, but neither brined nor limed; the Reſult was, that the firſt ſown proved ſmutty, and the latter ſown clear and free.——By the latter Seed's being not ſubject to the Severity of a very long, ſevere, cold Winter, and warm Weather daily increaſing on the ſame, I am of Opinion, it prevented the Misfortune that occurred to the firſt ſown: A Caſe that happened to many by the violent froſty Winter, 1739, who never had any ſmutty Wheat before.

Caſe the fifth. There was ſome Wheat ſown on a Dunghill for a Trial, and it proved all ſmutty.—It ſeems a plain Reaſon, that the great Heat of the Dung cankered the Kernels and occaſioned the Misfortune.

Caſe the ſixth. A Gentleman who keeps no Sheep to fold, and ſows only ſo much Wheat as juſt ſerves his large Family, dreſſes his Ground with only his Coach-horſes Dung; and, though he brines and limes, he has ſmutty Crops, when his Neighbour's are clear.—The Caſe is plain.

Caſe

Caſe the ſeventh. One of my Neighbours, an ancient curious Farmer, not only changed his Seed, but brined and limed it well, yet, the Year 1740, had a ſmutty Crop.—— This ſeems to be owing to a long froſty Winter, cold Spring, and dry Summer.

Caſe the eighth. Two Fields, whoſe Soil is a Mixture of white Clay, and a hurlucky Chalk, which lies on the Hanging of a Hill, ſheltered from the North and Eaſt-winds, is obſerved frequently to produce Wheat that is ſmutty.—The Worm, or Want of ſufficient Air, or the running Water off the Hill may canker the Roots of the Wheat.

Caſe the ninth. If Land is dunged with Stable Dung juſt before it is ſown with Wheat-ſeed, it is apt to breed ſmutty Wheat. An eminent Yeoman, near the Village of *Barly*, in *Hertfordſhire*, and ſo do many others that I have met with in my Travels, never dung their Land the ſame Seaſon they ſow it with Wheat; if they do, they ſay, they ſeldom fail of having ſmutty Wheat, though they change, brine, and lime in the common Way: Therefore, they lay on their Dung the Year before, and plow it in for ſowing the ſame with either Oats, Barley, or Beans. But in the Weſtern Parts of *Hertfordſhire*, and ſo in the Vale of *Ayleſbury*, they always lay their Dung on it for a Wheat-crop the ſame Summer, yet obſerve to do it on the firſt Stirree, which is commonly performed in *May* or *June*, if they are good Huſbandmen.

Caſe the tenth. A Gentleman's Bayliff in the *Chilturn* Country, in *September* 1740, on a preſumptive Notion that a Sack of ſmutty Wheat-ſeed, which he bought for the Purpoſe (that is, a Sack of Wheat that had many ſmutty Kernels in it) would produce a ſound Crop, if it was thoroughly brin-

ed

ed and limed; but, after Trial, he found his Expectation croſſed, for it returned him a lamentable ſmutty Crop.

Caſe the eleventh. By a loamy, gravelly, incloſed Field of four Acres, there grew a ſpinny Wood. This Field was ſown with Wheat, and about half an Acre of it that lay next the Wood was very ſmutty, but all the reſt clear, though it was ſown with the ſame Seed at the ſame Time.—This ſeems to be occaſioned by the Wood's retaining the Fogs, or keeping off the Freedom of Winds, or by the Suction of Tree-roots that may impoveriſh the contiguous Ground and ſtarve the Growth of the Seed.

Caſe the twelfth. It has been obſerved, that, when Wheat has been ſown late, it is not ſo liable to be ſmutty as that ſown more forward.

Caſe the thirteenth. A Yeoman that lives in the *Chilturn* Country had a ſmutty Crop of Wheat in the dry Summer, 1740, and, when he ſowed Wheat the next Time, his Days-man, by Miſtake, took the wrong Sack in the Dark of the Morning, and ſowed the ſame ſmutty Wheat; and it happened that, in the following Harveſt, he had half his Wheat-crop ſmutty.

Caſe the fourteenth. A Farmer, that lives about a Mile and a half from me, declared his Farm was never troubled with ſmutty Wheat for ſeventy Years paſt till 1741, when his Crop proved ſo ſmutty, that he had been at *Hempſtead* Market four Times, and could not ſell it. He only ſprinkled Water on his Seed and limed it.

Caſe the fifteenth. A certain Farmer took ſome ſeemingly ſound Kernels out of a ſmutty Ear, and ſet them in his Garden againſt other Wheat-kernels that were perfectly ſound; the firſt proved ſmutty, and the latter ſound.

Caſe

Caſe the Sixteenth. My near Neighbour had all his Crop infected one Year with ſmutty Ears here and there, but he ventured to ſow the ſame Seed after Brining, Skimming, and Liming, and it proved a ſound Crop. The Skimmings he alſo ſowed by themſelves, and they proved all ſmutty.

Caſe the Seventeenth. I was told by a Farmer that he tried the following Experiment: He waſhed his ſmutty Wheat-ſeed in three ſeveral Waters preſently after one another, till he had waſhed all or moſt of the Smut out of the Kernels. Then he ſteeped the Seed immediately in Brine a few Hours, and, after he had drawn off the Liquor, he limed and ſowed his Wheat, and had not the leaſt Smut the following Harveſt.—This is certainly a much ſurer Way than what I knew.

Caſe the Eighteenth. A ſilly obſtinate Farmer practiſed, *viz.* He put his ſmutty Wheat-ſeed into Brine, and, after it had ſtood a Night, he drawed off the Liquor, limed, and ſowed it, and had a ſmutty Crop in Return, 1741, becauſe the Smut, that is ſoaked or waſhed off, tinctures the Liquor, and conſequently infects the ſound Seeds that are among the Heap, as appears by the black glewey Mucilage or Subſtance that remains in the Bottom of the Brine after ſoaking ſuch ſmutty Wheat.

Caſe the Nineteenth. Another Farmer was of this Opinion, that it was thoſe Kernels that grow in ſmutty Ears and appear ſound that produce ſmutty Wheat, and not the ſmall ſound Kernels, for, as the Straw or Stalks of ſuch ſmutty Ears are generally rotteniſh at Harveſt, their Ears break ſooner off, than them growing on ſounder Stalks, and are picked up in great Numbers by Gleaners; when Farmers buy ſuch leaſed Wheat to ſow for Seed (as is commonly done, becauſe they think among

ſuch Wheat there is the leaſt Seeds of Weeds) they run a great Riſk of having a ſmutty Crop. Mr. *Tull* is very particular on this Matter, his Words are theſe, —— "Smutty Grains will not "grow, for they turn to a black Powder; but, "when ſome of theſe are in a Crop, then, to be "ſure, many of the reſt are infected, and the "diſeaſe will ſhew itſelf in the next Generation, "or Deſcent of it, if the Year wherein it is plant-"ed prove a wet one," *Page* 250.——The Wheat, that grows on a two Years Clover-lay, ſeldom or never produces a ſmutty Crop.

The Concluſion of this Chapter, ſhewing, in ſhort, what may occaſion a ſmutty Crop of Wheat.

Firſt. It may be occaſioned by the Weakneſs of Brine, that ought to be ſtrong enough to bear an Egg.

Secondly. By the Weakneſs of the Lime, which is beyond the Brine, for ſecuring a Wheat-crop from Smut.

Thirdly. By ſowing one Sort of Seed in the ſame Soil too often.

Fourthly. By a very froſty Winter, a very cold Spring, a very wet or a very dry Summer, or by infectious Winds.

Fifthly. By Wheat growing very thin among many Weeds.

Sixthly. By a rough, ſour, bad Tilth.

Seventhly. By infected Seed, that grows in the ſmutty Ear, and yet appears to the Eye ſound and clear, or by ſowing Pepper-wheat, or that damaged by Inſects, or burnt in the Mow, or of too great an Age, or too ſmall underline Wheat-ſeed.

Eighthly. By the Heat of Dung that lies along with the Seed in the Ground.

Ninthly,

Ninthly. By the Uſe of Stale or Urine in the Preparation of the Wheat-ſeed.

Tenthly. By a ſmall red Worm that is very apt to gnaw the Kernel or Blade of young Wheat, and thereby cauſes the Ear to be ſmutty, or kills it intirely, as I have known it do in a chalky gravelly Soil in the Years 1740 and 1741, about the Month of *November* before the Froſts came on.

Laſtly. In very low Vallies great Floods and their Continuance often corrupt the Roots of Wheat, and cauſe Smuttineſs, as well as great Rains do that fall about the Blooming and Kerning-ſeaſons, ſo that the Ears as well as the Roots of this Golden Grain may be damaged by too much wet Weather, and brought into a ſmutty Condition; for undoubtedly all thoſe Cauſes, that hurt either Root, Stalks, or Ears in their green Growth, tend towards infecting this Corn with that ſtinking black Sickneſs called *Smuttineſs.* After the great Froſt of 1739, we have had the forward Parts of three Summers very dry, and the latter Parts very wet; ſo that, for the three Harveſts 1740, 1741, and 1742, there has been more ſmutty Wheat than ever was known in the Memory of Man.

CHAP. IX.

Of Pepper-Wheat, its Nature and Prevention.

THE Nature of Pepper-Wheat: So called, becauſe its ſmall, lean, blackiſh coloured Corns are roundiſh like a Pepper-corn, and contain little or no Flour, but help to fill up the Buſhel, and grind to a naſty ill-taſted Bran, and therefore is much abhorred by the Wheat-buyers. This Sort in my humble Opinion is occaſioned by ſome of

the former Accidents, is next to Smut in its Nature, and would have been ſuch, had the Seed been more damaged, or the Cauſe been more imperfect. It grows in a bunchy ſhort Ear, that contains oftentimes ſome of this Pepper-wheat Kernels, and ſome very ſound ones; and, as they grow in one and the ſame Ear, I am apt to believe, it is either for Want of a ſufficient Nouriſhment at Root to perfect the whole Grains, that ſome of them thus prove defective, and grow into ſmutty Wheat; or it may happen by Blights that take that Side of the Ear wherein they grow: However, it is certainly of very ill Conſequence, when a Crop of Wheat has too great a Quantity of thoſe black Pepper-wheat Corns in it, becauſe they make a Sack of Wheat look pye-bald, help to give a brown Caſt to the Meal, and therefore is often-times rejected by the Buyers. Upon theſe Accounts it is, that a nice Farmer will never ſow leaſed or gleaned Wheat, for, it has been proved by ſeveral that have made Uſe of it, they never are free from a great Return of the ſame Sort, if they ſow ſuch gleaned Wheat-ſeed; by Reaſon there always are many Pepper-wheat Corns, or ſmall imperfect underlime ſound ones in their Ears, notwithſtanding all the Liming and Brining that are applied for preventing the Misfortune. Now, whether theſe Pepper-wheat-ſeeds ever grow again, is a Queſtion with many Farmers. I confeſs, I never gave myſelf the Trouble of nicely trying it; but, as there is a little Sort of Flour in them, they may poſſibly grow, yet it is impoſſible, they ſhould produce ſound Kernels, becauſe there is not farinous Subſtance ſufficient to bring them to Maturity. Some therefore ſay, it is theſe that bring forth ſmutty Wheat-ears, but many other Farmers think they never grow at all; however, there are few Crops of

Wheat

Wheat that have not few or more Pepper Wheat-ears among them. The beſt Way to prevent their Growth is to get the boldeſt, largeſt, and cleaneſt Wheat-ſeed, and then to ſtir and ſwim the whole Seed in Liquor and ſkim off all light ſuperficial Kernels, for by this all Pepper-wheat will riſe to the Top, and then it may be ſkimmed off. Pepper-wheat is known as it grows among other Wheat, by its dark-coloured Ear and black Kernels growing in the ſame, which, though of this Colour, yet will not black the Fingers like Smut. Therefore I would adviſe all Farmers never to buy leaſed or gleaned Wheat for Seed, notwithſtanding it is very common for moſt ſo to do, becauſe they think (as I ſaid) they are delivered from the Danger of the Seeds of Weeds, which are here avoided, by the Ears being picked up ſingly in the Field, and thereby alſo come by a Mixture of ſeveral Sorts of Wheat-ſeed, which by many are thought to grow beſt together; but let ſuch conſider, that all gleaned Wheat contains, for the moſt Part, the ſmalleſt Kernels by their growing in the refuſe Ears that eſcape the Reap-hook or Sheaf, and therefore are moſt of them dwindling imperfect Corns, that conſequently will produce dwindling imperfect Ears, and turn to ſmutty and Pepper-wheat. I know but one Farmer in our Neighbourhood that pays any Regard (beſides myſelf) to this Choice of Seed, and he, as well as I, would ſooner give ten Shillings for a Buſhel of full-bodied Wheat-ſeed, than ſix for ſuch a poor lean Sort to ſow, for we both have experienced the Value of one and the Loſs of the other, he in his whitiſh Loams, and I in my gravelly and clayey ones; beſides, when the Gleaners are in their Strivings, in a ſmall incloſed Field, who ſhall get moſt, they make no Difficulty to take up an Ear

of

of Darnel, as being ſomewhat like an Ear of Wheat, and then the Farmer comes by one of the worſt of Weeds.

A ſecond Way to prevent the Growth of Pepper-wheat. Always get your Seed in the cleaneſt largeſt Manner you can; and this is to be done by having it off new broke up natural Graſs-ground, or of thoſe who make it their Buſineſs to change their Seed every Year. And withal let it come from off a contrary Soil to that of yours. If yours is a ſandy Loam, let it be from a Clay; if a Gravel, off a Clay or Loam; if a red, yellow, or other Clay, let it come off a chalky, gravelly, or ſandy Loam, and ſo the reſt; and you will ſurely find your Advantage in this yearly Management, againſt having ſmutty, Pepper-wheat, or underline ſtarved Corns of Wheat.

A Third Way. Where Worms abound, they often gnaw the Wheat-ſeed, or its Roots, or its Blades, and thereby either kill it or ſo damage it, that it produces either Pepper-wheat or Smut; and I am apt to believe, that it was the chief, if not the only Cauſe, that a Neighbour of mine had, the Year 1740, half his Crop Smut and Pepper-wheat; for, he changed his Seed, and brined and limed it as well as any Man; and, though he does this every Year, yet for three Years laſt paſt, in his chalky and light loamy Grounds, he has had this Misfortune little or more; and I am the rather confirmed in this Opinion, becauſe, in a former Crop, this very Perſon ſuffered, I believe, twenty or thirty Pounds Damage, purely by the ſmall red Worm, that gnawed and ſpoiled his Wheat about *Allhollantide*; but ſuch like Damage may be eaſily prevented, if my Advice is taken that I ſhall give in next Month, where I ſhall diſcover a new Method of inſuring a Wheat-crop from the

Power

Power of Worms, and by the very ſame Means give a great Fertility to the ſame.

CHAP. X.

Of RYE.

OF ſowing Rye for a ſtanding Crop. This is the chief Month for ſowing Rye for a ſtanding Crop in Sands, Chalks, dry Loams, and Gravels, and is a moſt convenient profitable Grain for any of theſe Soils, even beyond Wheat; becauſe ſuch Soils, when (as they commonly are) very poor, dry, and huſky, are not able to carry forward and maintain a Crop of Wheat, when Rye, that is a moiſter, leaner Grain, will flouriſh and be ripe near a Month ſooner, if ſown early in *September*, that it may gain a Head Time enough to cover its Roots againſt the Severity of Winter-ſeaſons. This Grain is commonly ſown in Broad-lands in a fine Tilth, to the Quantity of one Buſhel, one Buſhel and a half, or a Buſhel and three Pecks on an Acre, according to the Nature of the Ground; for a ſandy Soil requires the leaſt Quantity of Seed, and the ſtiffer Soil more. It may be ſown half on the rough Ground before it is harrowed, and, when this is harrowed once in a Place, the other Half may be ſown and harrowed in; or all the Ground may be harrowed firſt, and then directly ſow all your Seed and harrow it in. Rye is of ſuch quick Growth, that, in a Month's Time after Sowing, it has been high enough to ſhelter a Hare. It is this Grain that is ſo much a Friend to the *Norfolk* and *Suffolk* Farmers in their ſandy Soils, that, without it, it would be very difficult for them to

pay

pay their Rents. It is hazardous ſteeping this Seed in any Liquor before Sowing, for Wets, at Sowing-time, are its great Enemy, and may (if too much Rain preſently falls then) burſt its Skin and cauſe it to ſprout too ſoon to its Deſtruction, for this Grain is naturally moiſter and thinner-ſkinned than Wheat, and therefore cannot ſuffer Wet like another Sort; and why ſome ſow this and Wheat together, is, I ſuppoſe, becauſe the Rye may give an eaſy Shade to the Wheat-roots, better ſupport its upright Growth with its ſtronger Stalks of Straw, and be ready to thraſh and grind together, and, tho' Rye is forwarder ſomething than Wheat, yet it ſeldom ſheds, if it ſtays for the Wheat. As I have in laſt Month wrote that *Auguſt* is the propereſt Time for ſowing Rye to feed Cattle on it, as Graſs in the Spring-time, yet it is not too late to do the ſame in this Month; but then ſuch Land ought to be more forced by Lime, or Soot, or Dung, or other Dreſſing, to maintain and forward the Growth of it in the cold Spring-ſeaſon, for ſupplying Milch Beaſts, when all other green Foods are gone. In ſhort, Rye is very valuable on many Accounts, as it is a Grain that will grow on poor Land only once or twice plowed, come early, and yield ſometimes twenty-five or thirty Buſhels on an Acre, which, with its uſeful Straw for Thatching, drying Malt, and feeding Cattle with, renders it worthy of Propagation, eſpecially in the more Northern Parts of *England*. And why this Grain may not be ſown on only one Plowing up of Turneps-ground, as we do Wheat, even till *February*, I cannot underſtand, ſince it is a quicker Grower than Wheat, and will grow on a rougher Tilth. It is true, I never tried the Experiment, but I am perſuaded it will anſwer, if the Land is in good Heart; for I am credibly informed

formed, that, in the *Baltick*, Rye is ſown and got in, in about two Months Time, and reckoned the beſt Sort of Rye in *Europe*.

The Improvement by dreſſing a new ſown Field of Rye with the Fold. As Rye grows very high in large Stalks and Ears, and, as I have formerly obſerved, is a great Peeler or Drawer of the Ground, it requires the ſtrongeſt Aſſiſtance, in a looſe Soil eſpecially; and, as the beſt of all others, I recommend the Fold, becauſe on the light Lands the Sheep will tread and faſten the Earth ſo cloſe about the Kernels, as to cauſe the Rye to ſtand firm all the Year after, give it a quicker Growth, and, in a great Degree, prevent the too powerful Influences of Froſts, Heats, Droughts, and Rains, from too freely entering the Surface, and chilling, parching, and waſhing the Roots of the Rye; and it is on this Account, that a fine hollow Tilth is better to ſow this Grain in, than on only one Plowing up a Stubble, becauſe the former is more capable of receiving a Benefit from the Feet of the Sheep, than a cloſe clung Surface can.

Sowing Rye after Turneps. It is uſual with ſome Farmers, who occupy ſandy Soils, to eat or draw off an early Crop of Turneps, and then to plow, ſow, and harrow in this Seed as a very good Piece of Huſbandry; becauſe, hereby, they obtain not only a valuable Sheep-dreſſing, by eating off the Turneps, but get two Crops inſtead of one; that is, one of Turneps and another of Rye; but then ſuch Turneps ſhould be eaten early enough off for the Rye to be ſown at *Michaelmas*, which may be eaſily done, if the Ground is ſown in *May* or *June* with the *Dutch* Turnep.

The Uſe of Rye. This Corn is apt to miſs in the Ear, yet may be ſaid to be a very hardy Grain, that commonly yields well, even from off a poor Soil. It is very ſerviceable to mix with Wheat-flour for making Bread, which it keeps moiſt, and both together form a wholeſome Loaf, that formerly was much eaten by Gentry, but of late Years by the poorer Sort only. Others fat Hogs with it, by grinding it into a coarſe Flour, and giving a Quart of it mixed in a Pail of Skim-milk, or Whey, twice or three Times a Day to two or three Hogs, and, by their thus Feeding and Drinking this ſweet nouriſhing Liquor, they will fat in a little Time to a great Bulk, even to weigh above forty Stone each; a Management that is very profitable to a Perſon of my Acquaintance who lives in a light Soil, ſo unfit for ſowing Wheat, that it obliges him to ſow it only with Rye, Barley, and white Oats. He has alſo as much Meadow ground as enables him to keep about thirty Cows, which furniſhes him with a large Dairy, and that with great Quantities of Skim-milk, and Butter-milk, that he keeps in a brick Ciſtern, placed about two Feet in the Ground and one out, on the North Side of his Dwelling-houſe; with ſome of this he mixes a Parcel of his Rye-flour, and gives it in Pailfuls at a Time to the Swine. This Grain is ſaid to yield great Store of Spirits or *Aqua Vitæ*.

Another Way of ſowing Rye for Sheep, Cows, or Horſes. The Suckling Farmers who live about *Rickmanſworth*, as ſoon as Harveſt is got in, plow up their Stubbles, and in this Month harrow in one Buſhel of Rye, with two Pound of Turnep-ſeed on a Acre, for feeding their ſuckling Ewes in the Spring-time, with an early Bite, which gives them an Opportunity to make the moſt of their

their Houſe-lambs. Others, for this Purpoſe, ſow Wheat, which, after it is fed down, will ſhoot again into a ſtrong Crop for Reaping at Harveſt. About *Gaddeſden* we plow up our Pea, Bean, or other Stubbles, and harrow in two Buſhels of Rye on one Acre, for feeding our Store-ſheep with their Lambs, in the Spring-ſeaſon, and after this we commonly plow it up and ſow Turneps for a Winter-crop.

Quantity of Rye to be ſown on one Acre. About the twenty-ſixth of *September*, 1736, I ſaw Rye high enough to cover a Hare in their ſandy Grounds, between *Thetford* and *Norwich*, and when they ſow their Grain early in theſe hot Soils, three Pecks, or three and a half, are ſufficient for one Acre, even for a ſtanding Crop, becauſe every Kernel generally grows in this looſe Earth; but, if it is ſown in ſtiffer Soils, then two Buſhels are but barely enough; for, in theſe, there are commonly ſome buried that never grow, and others that are carried away by Birds.

Of ſteeping or infuſing Rye-ſeed for ſowing it. If you have a Mind to prepare Rye-ſeed for improving it by ſoaking or infuſing it in any Liquor for Sowing, obſerve, that no Liquor hitherto invented is ſo efficacious as a nitrous Sort; but then you muſt manage it accordingly, and not uſe it exactly as I have inſerted it in my *Practical Farmer*, nor in my Month of *April* Book for Barley, becauſe in theſe there is Mention made of Urine, or Piſs, and other Matters improper for Rye; for this is too ſtrong an Ingredient for either Wheat or Rye, as has been experienced by ignorant Perſons, who have ſuffered by the Attempt to the Loſs of their Crop; for both Wheat and Rye have a more tender Skin than Barley, and therefore may the more eaſily be ſpoiled by Piſs,

which has ſtripped off the Skin, or rather eaten it off Wheat-ſeed to its Deſtruction. Wherefore, if any Perſons will endeavour to improve a Rye-crop, by ſoaking the Seed, let them have Regard to the following Directions, *viz.*

A Receipt for improving Rye-ſeed by Infuſion. Put three Pounds of Nitre into ſcalding Water, and ſtir it till diſſolved, which will be in leſs than a Quarter of an Hour, let it remain till it is cold; then throw it by a Quart at a Time over two Buſhels more or leſs of Rye-ſeed in a Tub that has a Tap and Tap-whips in it. After this is done, directly put in as much Mudgel-hole Water as will lie four Inches above the Seed; thus let the Rye infuſe four Hours; then draw off the Liquor, lime and ſow the Rye, and ſo on.

CHAP. XI.

Of RAPE *or* COLE.

A *Farther Account of Cole or Kale.* Although I have largely wrote of this moſt uſeful Vegetable in *July* and *Auguſt*, yet as it is not too late to ſow it in this Month, I have farther to add, that this Herb ought to be ſowed or tranſplanted in *September* at lateſt, where it is not done before, for Cattle, for the Kitchen, for Oil, or for Seed; and the rather, becauſe it is of that extraordinary hardy Nature, as to reſiſt the Severity of Weather in moſt Winters; for its pleaſant Food and Sauce in ſeveral Shapes of Cookery, and moſt of all for its Agreeableneſs, when boiled and eaten with pickle Pork or Bacon, which makes it the common Road-diſh for the Weſt-country for moſt Travellers;

vellers; and becauſe theſe Foods are generally in Readineſs, when Butchers Meat cannot be had, and that even in the deepeſt Snows.—If your Ground is of a right Sort, made rich with Dung or other Dreſſing, and in a fine hollow Tilth, there is not much Danger of a good Crop of Cole. I once plowed up two Stubbles immediately after Harveſt, and harrowed in Cole-ſeed; but on their Coming up, the deſtructive Slug took them and killed the Crop, when I knew not how to prevent it. Cole-ſeed may likewiſe be ſown on new broken up Wood or Sward-ground, where it is made fine enough for the Reception of the Seed; for no Earth can be too rank or too rich for it, and therefore, as I have formerly hinted, the fatteſt Mud of Ponds or Rivers, then thrown out and dried, may be made a very good Bottom for ſowing, harrowing, or raking this valuable Seed into great Advantage, both for Cattle and Poultry, as I have in my laſt Monthly Book particularly obſerved. In ſhort, no green Vegetable produces more Milk, nor fats Sheep nor Bullocks ſooner, and that in the ſevereſt cold Winter or Spring-weather, than Cole or Kale; only particular Care muſt be had to their Hoving, which all Cattle are very ſubject to that feed on it; but, if this happens, you may have ready one or more of thoſe Antidotes or Remedies I have writ of in the Month of *April*. In a Word, all theſe incloſed Stubble Fields, whoſe Soils are in good Heart, and of the ſtiff Sort, as ſoon as Harveſt is Home, or in this Month, may be plowed up and ſowed with this excellent Seed, as it is done of late in our weſtern Parts of *Hertfordſhire*, chiefly for feeding our Store Ewes and their Lambs in *December*, *January*, and other ſucceeding Months, when our Turneps, and all other Field-feeding Vegetables are eaten up, by which the

the Lives of Multitudes of Lambs may be preſerved alive, that otherways would die for want of Milk, or other nouriſhing Food, to enable them to reſiſt the Chill of Rains, the Dampneſs of the Earth, and the tempeſtuous Nights that frequently happen, and prove fatal to numberleſs of theſe new eaned Creatures; for it is common for great Rains and Snows to fall in the Lambing-ſeaſon; and, when theſe happen to be extreme, we ſometimes loſe almoſt half the Number of our Lambs, for want of proper Food enough to feed the Ewes, and breed Milk, which this moſt ſucculent Plant will do beyond all others. It is alſo by the Help of this Cole, Kale, or Rape, that the Suckling of Calves may be carried on in the greateſt Perfection; and that when the Farmer is not only deprived of all other Field Subſiſtence, but where even Grains, Malt-duſt, or any Thing elſe cannot be got, and this by only the Help of Hay and Straw, and this juicy Plant. This is one Example, among many, that diſcovers the Ignorance and Bigotry of our *Britiſh* Farmers, who, though they have often heard of the Improvement of Field Coleworts for more than forty Years, yet would never be brought to ſow the Seed in our *Chilturn* Country, till within theſe very few Years paſt, and that by Means of only ocular Demonſtration of a Neighbour's Succeſs, which ſometimes prevails over their Obſtinacy, when nothing elſe can.

Dreſſings and Manures for ſecuring a Crop of Cole againſt Inſects, and improving its Growth. As ſoon as the young Coleworts appear above Ground, ſow over every Acre twelve Buſhels of Peat-aſhes, or forty of Coal-aſhes, or ſixty of Wood-aſhes, or twenty of Soot; for any of theſe will not only tend very much to ſecure your Crop of Cole, or Rape, againſt the Slug, Worm, Caterpillar, or Grub,

Grub, but will keep off the Power of Froſts, and the Chill of Wets from hurting the infant Plants in a great Degree, and forward their Growth even in the Winter and Spring-ſeaſons, and cauſe them to be a ſweeter Food than when the Ground is dreſſed with rank Dungs, ſo that the very Lambs will be invited to nibble on their Leaves the ſooner, and with the greater Appetite. But there is another Preſervative and Dreſſing that will not waſh off, for the Improvement of Coleworts, that exceeds theſe for Cheapneſs and Efficacy, which I have not yet diſcovered, but all in good Time; in the mean While I muſt farther obſerve here, that as our Fold is the beſt Dreſſing, the cheapeſt and eaſieſt come by of all others, we have a great Opportunity of enjoying it by the Feed of theſe Coleworts; that is, by feeding our Weather-ſheep with them moſt Part of the Winter, and thereby getting our plowed Ground folded on for a Crop of Thetches, to feed our Horſes or Cows with, or our Sheep, or our Ewes and Lambs, or Store-hogs, or in order to prepare it for ſowing Barley, Peaſe, Beans, or Turneps, which this Dreſſing will do in great Perfection, becauſe this juicy Food will cauſe them to dung and urine in large Quantities, to the vaſt Benefit of the Land; for once Penning in Winter is worth twice Penning in the forward Part of the Summer, by Reaſon the Sun then is apt to dry too much, and make it loſe its Vertue, if the Grain is ſown very late after the Folding; but, for other Improvements by Cole-ſeed, I refer you to my former Works.

CHAP.

CHAP. XII.

Of Winter-Thetches, or Vetches, or Tares.

OF their Improvement. Theſe are called by the three ſeveral Names above-mentioned. In *Hertfordſhire* they are called *Thetches*, in *Middleſex*, *Tares*, in ſome other Parts *Vetches*. One Author gives Vetches four ſeveral Names or Diſtinctions, as, the *Gore-Vetch*, *Pebble-Vetch*, *Winter-Vetch*, *Rathripe-Vetch*; of all which I ſhall only here take Notice of the Winter-Thetch or Vetch. This is not the largeſt but the hardieſt Thetch of all others, therefore moſt proper for what I am going to recommend it; and that is, for ſowing it about *Michaelmas*-time as a moſt valuable Piece of Huſbandry, becauſe, by ſo doing, theſe Thetches will come in for feeding Horſes, Cows, and Sheep in the Spring-ſeaſon, after Turneps are gone; and this is one great Benefit belonging to Incloſures, for here we can ſow and time a Crop of Grain, Thetches, or Graſs at our Pleaſure, when the common open Field denies us.

How a Farmer ſowed Winter-Thetches, and had a great Crop one Year and none next. This Farmer who occupied about two hundred Acres of Land in *Studham* Pariſh, *Hertfordſhire*, being very deſirous to enjoy the Benefit of this Sort of Thetches, was at the Charge of ſending for the Seed as far as *Wickham*, in *Buckinghamſhire*; and, having got the right Winter large Sort, he plowed up a Wheat-ſtubble incloſed Field, that lay in two Bout-lands, into Broad-lands, and harrowed in two Buſhels of them on an Acre about *Michaelmas*-time. Theſe grew into a moſt fine Crop by the Help

Help of a mild Winter, ſo that he baited his Store-weather-ſheep on them for a conſiderable Time, from the Month of *May* forward, thus: In the Morning his Shepherd drove them from the Fold to the Common, where they remained till about two a Clock in the Afternoon; then he brought them into the Thetch-field, for filling their Bellies againſt Folding-time, and they would carry ſuch a Quantity of this pleaſant wholeſome juicy Food away, as cauſed them to dung and ſtale prodigiouſly; ſo that the Land was almoſt double dreſſed, in Compariſon of that Meat got only from off Commons. The next Year this Farmer ſowed the ſame Sort of Thetches again upon one of his Stubble-grounds, but miſſed of that Succeſs he the Year before enjoyed; for it happened that a moſt ſevere frofty Winter followed, that periſhed his whole Crop, for at the Spring they looked reddiſh, as if they had been ſinged, which made this Farmer plow up the ſame Ground and ſow it with Peaſe; which ſo diſcouraged him, that he never would venture to ſow any more Winter-Thetches, but betook himſelf to the Sowing of Clover and Trefoil for his Sheep, under Pretence of their being a more ſure Crop. However, this is not the Caſe of many others, for now theſe Winter Thetches get more and more into Uſe, for their forward and great Service, and that for almoſt all Sorts of Farmers Cattle. And, though I have wrote that this Farmer ſowed them on only plowed up Stubble, yet many make a Fallow on Purpoſe for them, that their Ground may be got fine and hollow enough, to cauſe a ſurer and ſwifter Growth of them. The Winter-Thetch is likewiſe very valuable to ſow at this Time of the Year, not only for Horſes, Cows, and Sheep, but

alſo for obtaining a very forward Crop of them for Seed; for, by ſowing Thetches thus early, they will be ready to mow early, and be got into the Barn in the drieſt and hotteſt Seaſon, and thereby give the Farmer an Opportunity to ſow the ſame Ground with Turneps, or *French* Wheat, Coleſeed, or indeed common Wheat; for hardly any Vegetable prepares the Ground better for the Reception of Seed than the Thetch, and this it will do to Admiration, inſomuch that many Farmers think a full Crop of Thetches will ſo kill Weeds, and enrich and hollow the Earth by their great Cover, as to equal ſeveral Plowings.

Of the Gore-Thetch. This Thetch is certainly the largeſt of all others, and, for this Reaſon, is preferred by many for a Crop to feed Horſes with in particular, while they are in their green Condition; for theſe Sort run into a large and very long Stalk and Kid, beyond all others, and are therefore fitter for feeding great Cattle than the ſmaller Sort of Thetch; but, as theſe are more tender than the Winter-Thetch, they are ſeldom ſown till *February*, *March*, and *April*, and then they rarely miſs of a plentiful Return, if the Ground was tolerable fine and in good Heart; for a Thetch is a very hardy Vegetable, and of great Uſe to a Farmer, becauſe they will not only ſupply his Horſes, Cows, Sheep, and Hogs with Meat in the Field, but alſo in the Stable, Cow-houſe, and Stye, if they are daily mown and given them. It is the Practice of a great Farmer, near me, to mow his Thetches as ſoon as they are grown into a good Head, or in Bloſſom, and till they are in Kid, but not when too old, and gives them to his Hogs; for ſome Sort of Swine will eat them greedily, if they are cut and given them

them every Day freſh, and ſo thrive as to become Pork, if they have no other Food. I ſowed about two Acres of a large Field with Thetches, for my Horſes, and, though the reſt of the Field was plowed ſeveral Times and dunged the ſame as this Piece was, yet I had better Wheat where the Thetches grew than in any other Part of the ſame Field, though the ſame was not plowed ſo often as the reſt was, as it was proved in the Year 1741. It was this Sort of Thetches alſo that maintained my Horſes alone, under the Work of Cart and Plough in 1742, good Part of the Summer, and are of ſuch a fattening Nature, that a Horſe, in three Weeks or a Month's Time, will get fat with them; and one Particular I muſt farther obſerve as an Effect of the hot Nature of a green Thetch: They made a Mare of mine promp in leſs than a Week's Time, and cauſed her to take Horſe to my Wiſh, that before I had Reaſon to ſuſpect was a barren one. This Piece of Huſbandry is alſo performed in many open Fields, as it is this Year 1742, among *Lent*-grain, in *Edgborough* common Field, in *Bucks*, where, a Farmer of my Acquaintance having but one Piece of Ground in one Part of the Field, and another at a Diſtance in the ſame, he runs Hurdles along the Outſide of the Piece, and then baited his Store-ſheep on them for Folding good Part of the Summer. Thetches are generally ſown on Land plowed in four ſeveral Shapes. *Firſt*, In the Vale they are ſown Broad-caſt, and plowed in their half Acre Ridge-lands; and they either feed them by ſtaking and daily ſhifting their Horſes on the ſame; or mow and carry them to the Rack in the Stable. *Secondly*, Where they ſow them on three or four Bout-lands, they either plow or harrow them in.

Thirdly, In the *Chilturn* Country we ſow them in two Bout-lands, by plowing them in; or, *Fourthly*, On Broad-lands, and harrow them in. This is giving a practical Account from the Reſult of Experience, which would have been impoſſible for me to have done, had I not travelled for a great deal of my Knowledge; ſo that, however deficient I was formerly in my Writings, I hope I am now able to give my Readers that Satisfaction as may tend to their Profit in particular, and to my Country's Intereſt in general.

CHAP. XIII.

Of SAFFRON.

OF *the Gathering of Saffron.* About the Middle of this Month the Heads of the Saffron will appear in its Beginning to ſhoot near the Surface; which gives an Opportunity to the Owner to pare off the Top of the Land very thin with a Hough to take off Weeds, and make the better Room for the Saffron to throw up its fine purple Flowers, which it will do quickly after. If your Saffron was planted laſt *June*, it will return you an indifferent Crop in this and next Month, when many, and generally only Women and Girls, are employed to gather the Flowers every Morning, beginning at Break of Day, leſt the Sun dry and ſpoil the Saffron-heads. This Work commonly laſts three Weeks or a Month, when they carefully obſerve to gather only thoſe as they come up before full Blooming; for, though they are open in the Morning, and thereby the more expoſed

ed to be gathered, yet, when the Sun ſhines bright and hot, they cloſe up, and are not fit to be meddled with; which is the Reaſon they are ſo long gathering, for what is not fit to gather To-day, may be ready To-morrow, Muſhroom like. If it be the ſecond or third and laſt Crop, there may be great Plenty, if the Seaſon has been kind for their Growth and Gathering, though the Chives are picked wet or dry out of their Shells, and laid very light two or three Inches thick on Paper, which they lay on a Hair-cloth, and that on a little Saffron-kiln, made of Clay, and dried with Charcoal, with a Covering on the Saffron of Cloth or otherways, as I ſaw them do it at *Keſtevan*, within two Miles of *Saffron-Waldon*. Three Pounds wet is ſaid to produce two Pounds when dried. An Acre of Ground ſeldom fails to return ten, or perhaps fourteen Pounds of Saffron, and ſometimes twenty or more, that may be worth one, two, three, or four Pounds a Pound.——A ſufficient Encouragement, I think, to incite many to employ their poor chalky or ſandy Loams in open Fields, and that cannot be let for common Uſes for more than a Noble an Acre; for ſuch is the Nature of their whitiſh Land in the common Fields about the two *Keſtevans*, where this valuable Plant grows in great Perfection, ſecured againſt the Rapine of Hares and other Vermine, by the wattled Hurdle, faſtened on the Ground by Stakes and moveable at Pleaſure. If other Nations could warrant their Saffron to be the beſt of all others, they would undoubtedly plant more than they do. We in *England* can ſay this with Aſſurance, and yet neglect planting the Sets or Roots of Saffron in a thouſand Places, where it may be properly done. *Query*, Whether drying Saffron on the Cockle-oaſt-

kiln

kiln may not improve it; becauſe this Kiln dries by hot Vapours, or Air, in the ſweeteſt and moſt regular Manner; for this Reaſon it is, that drying Malt and Hops with Charcoal in common Hop-kilns, gets more and more into Diſuſe, and the Cockle-oaſt-kiln more into Uſe. The true Drying of any Vegetable is certainly of great Importance to the Preſervation of its Spirit, its good Reliſh, and Keeping all ſound. Hence it is, that the too haſty Drying of Malt (pale eſpecially) gives it a raw Taſte, and unhealthy Quality, breeds the poiſonous Wevil, if it lies long in a Heap, and cauſes a Diſlike in the Drinker of its Ale or Beer, often to the great Prejudice of both Brewer and Retailer: And ſo does the ill Quality of ſome Fewels by their naſty Smoke, that impregnates Malt with a very diſagreeable Tang; and even Charcoal, *Welch* Coal, or Coak, which by moſt People are thought to be free of Smoke, have a Sort of Brimſtone, or other ill Effluvia, or Vapour, that taints, in ſome Degree, what is dried with them; but the Cockle-oaſt delivers from this Misfortune every Thing that is dried on its Kiln, let the Fewel be of what Sort ſoever. In my humble Opinion, the Planting of Saffron wants Inſpection and Encouragement, for its farther Propagation, as I ſhall ſhew in the enſuing Chapter.

CHAP.

CHAP. XIV.

A farther Account of Saffron, being a Relation of the Culture or the Planting and Ordering of Saffron, by the Honourable Charles Howard, *Esq*; Philoſophical Tranſactions, No. 138.

SAFFRON-Heads planted in a black, rich, ſandy Mould, or in a mixed ſandy Land, between white and red, yield the greater Store of Saffron.

A Clay or ſtiff Ground, be it never ſo rich, produceth little Saffron, though Increaſe of Heads or Roots, if the Winter prove mild and dry; but the Extremity of Cold and Moiſture will rot them, ſo that the fineſt light ſandy Mould, of an indifferent Fatneſs, is eſteemed moſt profitable.

Plow the Ground in the Beginning of *April*, and lay it very ſmooth and level.

About three Weeks or a Month after, ſpread upon every Acre twenty Loads of rotten Dung, and plow it in.

At *Midſummer* plow it again, and plant the Saffron-head in Rows every Way three Inches diſtant one from another, and three Inches deep.

The moſt expedite Way of Planting is to make a Trench the whole Length of the Field, three Inches deep with a Spit-ſhovel.

The Spit-ſhovel is to be made of a thin, ſtrait, Iron, ten Inches long, and five Inches broad, with a Socket in the Side of it, to put a Staff or Handle; lay the Saffron-heads three Inches diſtant in the Trench, and, with a Shovel, ſpit up three Inches of Earth upon them.

Obſerve

Obſerve this Order in planting the whole Field, whereby the Heads will lie every Way three Inches ſquare one from another, only Paths or ſhallow Trenches are to be left two or three Yards aſunder, which ſerve every Year to lay the Weeds to rot, that are to be weeded and pared of the Ground.

As ſoon as the Heads begin to ſhoot or ſpear within the Ground (which is uſually a Fortnight before *Michaelmas*) hough or pare the Ground all over very thin, and take lightly all the Weeds and Graſs very clean, leſt it choak the Flowers, which will ſoon after appear, and are then to be gathered, and the Saffron to be picked and dried for Uſe.

The Ground muſt be very carefully fenced from Sheep or Cattle, which, by Treading, break the Saffron-graſs, and make the Chives come up ſmall.

In *May* the Saffron-graſs will be quite withered away, after which the Weeds and Graſs the Ground produceth, may be cut and mowed off from Time to Time, to feed Cattle, till about *Michaelmas*, at which Time the Heads will begin to ſpear within the Ground.

Then hough, pare, and rake the Ground clean as before, for a ſecond Crop; the like Directions are to be obſerved the next Year for a third Crop.

The *Midſummer* following, dig up all the Saffron-heads, and plant them again in another new Ground (dunged and ordered as aforeſaid) wherein no Saffron hath been planted, at leaſt not within ſeven Years.

The Flowers are to be gathered as ſoon as they come up, before they are full blown, whether wet or dry.

Pick out the Chives clean from the Shells or Flowers, and ſprinkle them two or three Fingers thick,

thick, very equally, on a double Saffron-paper; lay this on the Hair-cloth of the Saffron-kiln, and cover it with two or more Saffron-papers, a Piece of thick Woolen Cloth or thick Bays, and a Cuſhion of Canvas, or Sack-cloth filled with Barley-ſtraw, whereon lay the Kiln-board.

Put into the Kiln clean, thoroughly kindled Charcoal, Oven-coals, or the like, keeping it ſo hot, that you can hardly endure your Fingers between the Paper and the Hair-cloth.

After an Hour or more, turn in the Edges of the Cake with a Knife and looſen it from the Paper; if it ſtick faſt, wet the Outſide of the Paper with a Feather dipped in Beer, and then dry the Paper; turn the Cake, that both Sides may be of a Colour.

If it ſtick again to the Paper, looſen it, and then dry it with a gentle Heat, with the Addition of a Quarter of a Hundred Weight upon the Kiln-board.

The Saffron-cake being ſufficiently dried as fit for Uſe, it will laſt good many Years, being wrapped up and kept cloſe.

The beſt Saffron is that, which conſiſts of the thickeſt and ſhorteſt Chives, of a high Red and ſhining Colour, both within and without alike.

Saffron is oftentimes burnt, and in Knots, ſpotted and mixed with the Yellows that are within the Shells.

It is uſually obſerved that one Acre doth yield at the leaſt twelve Pounds of good Saffron one Year with another, and twenty Pounds ſome Years.

What is called good Saffron is ſeldon or never ſold at ſo low a Price as thirty Shillings a Pound, but often for three Pounds a Pound, and more;

wherefore one Acre bearing twelve Pounds, at forty Shillings the Pound, amounts to twenty-four Pounds a Year.

The gathering and picking of one Pound of Saffron is worth one Shilling, which comes to twelve Shillings an Acre.

The Charge of Fire and Drying may come to three Shillings more at three Pence a Pound, which makes fifteen Shillings in all.

The Graſs, that is cut off with the Scythe for the Uſe of Cattle, will be very near worth as much as will countervail the picking and drying the Saffron, the Soil being enriched, not only by the Dung but the Saffron itſelf, as appears by the rich Crops the Ground yields for ſeveral Years after without any other Manuring or Improvement.

Sixteen Quarters of Saffron-heads are ſufficient to plant one Acre; a Quarter of theſe Heads is uſually ſold in the Place for ten Shillings, which comes to eight Pounds an Acre.

Twenty Loads of rotten Dung, laid on the Ground, may be worth forty Shillings, at twelve Pence a Load for the Dung, and as much for Carriage into the Field.

For thrice plowing the Ground, twenty Shillings.

For planting the Heads, about four Pounds, which in the Whole makes fourteen Pounds, the Charge of planting an Acre, which will bear three Crops

So that, all Things reaſonably computed, it appears that an Acre of Saffron will be worth, notwithſtanding all Caſualties, one Year with another, over and above the fourteen Pounds Charges, for the firſt Year's Planting (at the leaſt) twenty Pounds

Pounds *per Annum*, beſides the great Increaſe of the Saffron Heads, which will be as three for one.

The KILN.

It conſiſts of an oaken Frame, lathed on every Side, twelve Inches ſquare in the Bottom, two Feet high, and two Feet ſquare at Top, upon which is nailed a Hair-cloth, and ſtrained hard by Wedges, drove into the Sides; a ſquare Board and a Weight to preſs it down, weighing about a Quarter of a Hundred.

The Inſide of the Kiln is covered all over with the ſtrongeſt Potter's Clay, very well wrought together with a little Sand, a little above two Inches thick.

The Bottom muſt be lined with Clay four or five Inches thick, which is the Hearth to lay the Fire on; level wherewith is to be made a little Hole to put the Fire; the Outſide may be plaiſtered all over with Lime and Hair.

Thus, by adding this plain Account to the foregoing one of my own, I hope it may prove a Means to provoke many to plant this moſt valuable Ingredient Saffron; whereby great Quantities of poor Land may be made to bring an improved Rent to the Landlord, fill the Tenant's Pockets with Money, and become a vaſt Service to the Nation in general.

The Advantages and Diſadvantages of a Saffron-Plantation. Theſe have been calculated: One Author writes that the three Years Charge of planting and managing one Acre of Ground, for Rent, Dung, Plowing, Roots for ſetting, planting them, picking forty-five Pounds of Saffron

in the three Years, for Fire and Drying, Tythe and Cleanſing, amounts to twenty-nine Pounds, fifteen Shillings, and ſix Pence.——And for the Profit, he reckons fifteen Pounds Weight a Year, as the Produce of one Acre, that is forty-five Pounds of Saffron in three Years, at twenty-five Shillings a Pound, which comes to fifty-ſix Pounds, fifteen Shillings; and for the grazing off the Ground all that Time three Pounds, in all fifty-nine Pounds fifteen Shillings; which is near ten Pounds a Year clear Profit for one Acre of Saffron-ground, and at the ſame Time the Ground improved, by three Years reſting, for future Crops of Corn; but it oftentimes happens that an Acre off Saffron-ground turns out to a greater Profit; this Calculation was made for one of the cheapeſt Seaſons.

An Account of Saffron from Keſtyver. When I was in this Saffron-ground, in 1736, they gave me the following Account: After they have prepared and dunged their Ground, about *June* they ſet or tranſplant the Sets, which are the young bulbous Off-ſets of the old Roots, that they manage and dreſs. Theſe they ſet in Rows at four Inches aſunder, which next Summer come up like Barley, or Couch-graſs, and ſo on, till about *August* when they hough them; and then, or after, comes up the purple Flower, which they begin to gather about the Middle of *September*, and hold every Day, picking the ripeſt for a Month or more in all, for which Work they give the Women five Pence a Day and their Victuals. Their Ground is a light Loam, a ſmall Matter gravelly, and lying on a Deſcent. The Plantation laſts three Summers gathering; then they plow and ſow Wheat or Barley, and ſo on till they make a Fallow, which they do

do every third Year, for here their Saffron-ground was incloſed by Rod-hurdles out of a common Field; and they told me, the ſame Ground muſt not be ſet with Saffron-roots again under fifteen, or twenty Years. Here they dry their Saffron on a ſmall Kiln, about three Feet ſquare, in a Room with a Hair-cloth and Charcoal-fire, one Cake at a Time, near the Thickneſs of a Crown-piece, and as broad as the Bottom of a common Chair. The Price, in 1735, was five and thirty Shillings a Pound; but they thought that, in the Winter, 1736, it would fetch no more than a Guinea a Pound; there is ſo much Difference in the Seaſons of the Year.

CHAP. XV.

Of HEMP *and* FLAX.

THE Pulling and Inning of Hemp. This moſt uſeful Article in Husbandry is certainly too little known, and leſs practiſed, I mean the Sowing of Hemp-ſeed, and the Management of it afterwards; or elſe many Thouſands of heavy, watery, wettiſh Lands would not be put to worſe Uſes, than if ſowed with Hemp-ſeed for preventing the Importation of it, and ſupplying our Wants with our own *Britiſh* Crops. But it is not only this Sort of Land, that is proper for this Uſe; any ſtiff Loam, or common Haſel Earth, if well manured, will do very well, as I obſerved in particular in the incloſed Fields lying on the Weſt-ſide of *Dover*-Town in *Kent*, where little or more is annually ſown. In *Auguſt*, 1736, I ſaw that, which was pulled up the

the Beginning of that Month, tied up in Bundles, and ſet upright againſt Hedges to dry, to be turned once, or twice, according as the Weather happens. At firſt it was pulled up leiſurely, and laid in Swarths on the Ground, turned two or three Times in three or four Days, and then bound up. This is the Female, or beſt Hemp; for Seed, they let a remaining Part grow a Month or more longer; and, tho' it runs up to five, or ſix Feet high, yet, while it is greeniſh, they pull it up leiſurely in this Month, leſt they break and ſpoil it. The Seed-hemp is likewiſe, after being pulled up, to be dried in Bundles, or Sheaves, to ſtand Abroad a Week or more upright. Some thraſh it on Barn-cloths in the Field, as we do Turnep-ſeed. Others ſtack it a while in the Barn, before they thraſh it. There are ſometimes twenty Buſhels of Seed got from off one Acre, that fetch as much Money, as the Hemp is ſold for; and thus, perhaps, an Acre may produce a ten-pound Crop. Its Culture expect in *March*. But others, after it is in the Barn, will only rub out the Seed; Thraſhing, they ſay, bruiſes it too much.

Italian *Hemp, its Nature and Value.* This Sort is the beſt of all others whatſoever, as being longeſt and whiteſt, and therefore, beyond any, makes the fineſt Shoe-makers Thread, *&c.* The next beſt *Italian* Hemp is about a Yard long, for Sheeting, and other Houſewives Uſes. The beſt *Italian* Hemp is commonly ſold for thirty Shillings a Hundred-weight rough; when cleaned, for a Shilling, or Ten-pence a Pound; Houſewives beſt Hemp Eight-pence, and the next Sort to this, for Sheeting, Six-pence a Pound. The very ſhorteſt Sort of *Italian* Hemp is near as white, and as fine a Flax. *Italian* Hemp will never take Tar for Ship-uſe, there-

therefore they make Uſe of green *Ruſſia* in its Room, becauſe it is of a ſtrong Nature, as I am going to ſhew.

Ruſſia *Hemps, their ſeveral Natures and Value.* *Ruſſia* Hemp is much in Uſe with ſome Country Hemp-dreſſers for Houſewives Shirting, *&c.* but is not ſo ſtrong as *Riga* Hemp. There is another Sort from *Ruſſia*, or *Muſcovy*, called *Paſs*-hemp, which is a very ſhaggy, coarſe, cheap Sort, uſed altogether for Roping. Another Sort from *Muſcovy* is called *Cadale* Hemp, that is both fit for Houſewives Uſes, and Roping. *Riga* Hemp the King has always the firſt Refuſal of, and is commonly ſold for eight-and-twenty Shillings a Hundred-weight rough. For Sheeting and Shirting, when dreſſed, the long Sort is generally ſold for Eight-pence a Pound, the ſhort for Five-pence. The uſual Price of *Paſs*-hemp is ſixteen Shillings *per* Hundred-weight, as imported; *Cadale* fourteen. The worſt Ropes are made with *Paſs* and *Cadale* Hemp; the beſt with *Riga* Hemp. The beſt *Riga* Ropes are Sixpence a Pound, the worſt *Riga* Five-pence; but Rope-makers ſell a great deal of bad, as well as ſome good. Clock, Jack, and Clothes-lines ſhould be made with ſix-penny *Riga* Hemp, but they make many of a bad four-penny. The ſix-penny Halters are commonly made with dry, good Hemp; the three-penny ones of ſhort, bad Hemp. I once was cheated in buying a Pair of Cart-ropes, in *Bedfordſhire*, at Four-pence half-penny a Pound, for they broke the very firſt Time of uſing in a moderate Way. On the eleventh Day of *May Dunſtable*-Fair is yearly kept, where are ſold hempen Cloths for Sheeting in great Quantities; inſomuch that many call it a Cloth-fair, although it is properly a Horſe-fair, and one of the greateſt in *England*. Here their cheapeſt Sheets are ſold for about

about Eleven-pence an Ell; but ſome are made of the worſt Sort of Hemp, called *Snarlings*, generally ſold for Three-pence, and Four-pence a Pound: This, when ſpun, is weaved for Two-pence half-penny an Ell for coarſe Sheeting, and thus ſerves to employ Farmers Children and Servant-maids at their Leiſure-time. Therefore People ſhould take good Heed of what they buy on this Account; for, where ſuch hempen coarſe Cloth is made with the ſhorteſt, knotty, and worſt of Hemp, many an honeſt poor Body may be deceived, for theſe wear with very uneven Threads, and ſoon out. The ſix-penny Hemp, well ſpun and wove, is much cheaper. Now, as there are vaſt Quantities of this Commodity conſumed in Shipping, and the like for Houſewives Uſes; and as home-made Sheets, Shirts, *&c.* made of Hemp, are allowed to wear much longer than thoſe ſold at Shops, and ſerve to employ Wife, Children, and Servant-maid, keeping them out of Idleneſs and bad Company, and learn them to get their Bread when they come to their own Hands, it is of the greateſt Conſequence to this Nation to ſow Hemp-ſeed, more than is done, not only for manufacturing it, and employing of poor People, but alſo for the valuable Oil it makes, feeding Singing-birds, Pigeons, and Dunghil-fowls, and preventing the Importation of it from foreign Countries, *&c.*

How Hemp and Flax may be got in great Plenty at Home, and made Uſe of in the higheſt Perfection. Many Authors have wrote good Accounts of theſe valuable Commodities: In Mr. *Houghton*'s Collections, Vol. IV. Page 114. it is ſaid, ſeveral ingenious Perſons have endeavoured the Propagation of Hemp and Flax, by ſhewing, that a Law ought to be made to oblige Farmers to ſow little or more of them;

them; by raiſing Stocks in Countries, by erecting Work-houſes, by public Schools, *&c.* Sir *Richard Weſton* excellently well obſerves, That the Defect of it is ſo obvious, that all the World takes Notice of it; and that, next to the Neglect of Fiſhing, it is the greateſt Shame to this Nation; for, as he ſays, all know we have as good Land for it, as any in *Europe*; that their Seeds are ſown as eaſy, and as cheap, as others are; that we ſhould be very miſerable without Linnen, Canvaſſes, Cordage, and Nets; and not able to put our Ships to Sea, which are the Bulwarks and Walls of this Nation, without Hemp and Flax; and yet are obliged to have it from thoſe that, perhaps, would, one Time or other, deſtroy our Trade and Shipping. He goes on, and tells us how this may be remedied, *viz.*

Several Reaſons for encouraging the Sowing of Flax and Hemp-ſeed. *Firſt*, To oblige, by a Law, all Farmers, who plow and ſow fifty, or an hundred Acres of Land, to ſow half an Acre, or an Acre of Hemp, or Flax; or, in Default thereof, to be mulcted five, or ten Shillings every Year to the Poor of the Pariſh; or ſome other Law to this Purpoſe; for that there is no Farmer, but what hath Land fit for one of theſe, Hemp requiring a ſtiff Soil, and Flax a light one. That, in King *Edward*'s Days, ſomething was enacted to this Purpoſe. In King *Henry* the Eighth's Time there was a Law made, that every Man ſhould ſow his Lands, and none incloſe them, for fear they ſhould turn them to Paſture, becauſe of the Famine, that had lately happened in *England* through Neglect of Tillage; which Laws are now in Force. But that Caſe is ſince altered, becauſe, on the contrary, Men at this Time are full forward to convert Paſture into

Arable, for Intereſt-ſake, and therefore Incloſure, at this Time of Day, is thought an Improvement. And, as to Flax and Hemp, he ſays: If Men were accuſtomed to ſow them, they would never leave it off; as the Farmers do in Eaſt *Kent*, where there is hardly a Man but will have a conſiderable Parcel of Ground ſown with Hemp-ſeed. And that, about *London*, greater Quantities of Flax are ſown, than heretofore.

Secondly, That every Pariſh throughout the Nation ſhould have a ſufficient Stock to ſet their Poor at Work, to keep Women and Children from running idling up and down the Country, and begging, or ſtealing Apples, Peaſe, Wood, *&c.* and ſo, by little and little, being trained up for the Gallows.

Thirdly, He is for having an Act made againſt thoſe Vagrants, who run up and down, and will not work; for, if all knew, that they might have Work enough at Home, and get more within Doors honeſtly, than by roving about, why ſhould they not be compelled to it? And, though ſome may fancy, that, by this Means, Pariſhes may be overſtocked, and loſe by it, yet let them conſider how much they will ſave at their Doors, how many Inconveniencies they will be freed from; their Hedges will not be pulled, their Fruits ſtolen, nor their Corn purloined; and that, by this Means, the Poor will be trained up to Work, made fit for Service, and, in their Youth, learn a Calling for getting an honeſt Livelihood. By this Means, he ſays, he dares affirm, the Poor would not be ſo numerous, nor chargeable, but, inſtead thereof, made to become a very great Benefit to the Nation.

Fourthly, He ſays, that the charitable Deeds of our Forefathers ought to be inquired into, that they be not miſ-applied, as they commonly are, but be really

really beſtowed for the Good of the Poor that are laborious, as in *London* is begun; and, if there be any that will not work, take St. *Paul*'s Rule, who beſt knew what was beſt for them. I dare not adviſe to take in Commons, Fens, *&c.* and to improve them for this Uſe, leſt I ſhould too much provoke the rude, mercileſs Multitude. But to return to my Subject: I ſay, ſays he, that Sowing Hemp and Flax will be very beneficial.

Firſt, To the Owners of Land; for that, in many Places, three Pounds an Acre are given to ſow Hemp and Flax on, and yet they get good Profit; as he ſaw done about *Maidſtone*, in *Kent*, which is the only Place in *England*, where Thread is made; and, though near a thouſand Hands are here employed about it, yet they make not near enough for the Kingdom's Uſe. What vaſt Advantage muſt it then be to thoſe, who have drained their Fens, to ſow Hemp-ſeed? For here, in Courſe, it will flouriſh, and thicken the Earth; for, as he ſays, Hemp affects ſtiff Land, and Flax that which is light and dry. The ſame in the Northern Parts of *England*, where it may be propagated to great Profit, becauſe Lands and Hands are here very cheap. He further ſays, that, if we be idle, he hopes, in a little Time, *Ireland* will furniſh us with theſe Commodities, for that Land and People are there likewiſe very cheap. Nor do theſe Seeds want any Incloſure, for no Cattle will touch them, nor Thief pilfer them, either in Field, or Barn.

Secondly, It is certainly very much to the Sower's Advantage. I know, ſays he, that an Acre of Flax is valued at ten, or twelve Pounds, that ſtands them in but half the Money; and he makes this Query: Whether there be Flax, that yields thirty or forty Pounds an Acre, as ſome report, I know not.

Thirdly, It is alſo profitable to the Place where it is ſown, becauſe it ſets the Poor to Work. I wiſh, ſays he, it was more encouraged in the North, than it is, becauſe there are many Poor, who would gladly take Pains for Bread; and, though Spinning of Linnen is but a poor Work, yet it is light, and may be called Women's Recreation; for, in *France* and *Spain*, the beſt Citizens Wives think it no Diſgrace to go about ſpinning with their Rocks; and, though, in ſome Parts, the Poor may think it next to nothing to earn a Groat, or Six-pence a Day, and had rather ſtand with their Hands before them, than work ſo cheap; yet, in the North, they are glad of Three or Four-pence a Day by Spinning, which is in their Power to do.

Laſtly, He ſays it would be very much to the Intereſt of this Nation, and ſave it many thouſand Pounds, nay, hundred Thouſands, which are exported in Caſh, or good Commodities; nor ſhould we be beholden to *Holland* for their fine Linnen and Cordage; nor to *France* for Poldavies, Locrams, Canvaſſes, or Nets; nor to *Flanders* for Thread; becauſe, at our own Doors, we may ſupply ourſelves with theſe Commodities in an abundant Manner. To this I ſhall add ſome farther Reaſons for the Improvement of Huſbandry in this, and other Branches of this uſeful Science,

CHAP.

CHAP. XVI.

A farther Account of Hemp *and* Flax, *and ſeveral other Matters of Husbandry.*

SINCE there is an Act of Parliament, made in the Year 1742, intitled, *An Act for the Encouragement of making Sail-cloth in* Great-Britain, it behoves all Perſons, in whoſe Power it may lie, to be aiding and aſſiſting towards perfecting this valuable Work; which will add to the Farmer's Intereſt by ſowing Flax-ſeed, give Employment to many Thouſands of Pariſh Poor, and leſſen their Tax; prevent the Importation of foreign Sail-cloth, and enable us to ſupply our Shipping at Home and Abroad with this neceſſary Manufacture: And, if the Running of Wool to *France* can but be prevented, as it ſhould be, we then in Courſe ſhall become a flouriſhing Nation, by monopoliſing the Clothing-trade to ourſelves, both at Home and Abroad, and thereby be able to make our own Market (as the *Dutch* do by their Spice) to the Spoiling of that Commerce, which *France* has carried on for many Years, to their vaſt Profit, in *Turkey*, and other Parts, by working up their hairy coarſe Wool with the beſt of our *Britiſh* and *Iriſh* Sorts, as I have made it appear in one of my Monthly Books. I am ſenſible, the Hemp-trade is ſomewhat increaſed of late Years in the Iſle of *Ely*, and ſome other Places, whereby the Rope-makers, and other Work-people in the adjacent Parts of it, are ſupplied with that Commodity. But, alas! what is this to the great Conſumption, that is annually made in the ſeveral Counties of this Nation, and at Sea? If we ſowed enough, we need not be beholden to *Ruſſia*, and

their Baggage, in which have been two Beds and their Coverlets, that they lay in the Field in fair Weather for their Lodging. Here they have taken up their Quarters for several Days together, as being very convenient for their Purpose, because the Field lies almost half a Mile distant from our Village, by which the Men can strole about in the Day-time unperceived, and make themselves their own Spies against the following Night. But I leave them to recount the History of their Women.

CHAP. XVIII.

The History of the Woman-Gypsy.

THESE Women strole about by Day, and call at almost every House, praying Pity for Heaven's Sake, for themselves and their Children, with their Mouths full of Blessings, till you deny them Relief; and then, very likely, as many Oaths and Curses follow, especially if you give them but a little Provocation by harsh Words. And, when they can meet with an Object of their Wish, that is, an ignorant Maid-servant, or other young Woman, or even well-grown Girls, they fall a propheſying their good Fortune in Part; but, if they will be generous, they will tell them what Sort of Husband they shall have, how rich he will be, and how well she shall live, and other such Bombast-rhethoric, which by Study and often Repeating they are extempore Mistresses of; with this Bait they too often make a Prey of the Innocent, and delude them to

that

that Degree that ſome have parted with all their Money, and others with their very Cloaths to them, for obliging them to diſcover what they the Gypſies would make them believe; where they may find Money, and when, and how they may have their deſired Object, but this is not all: It is theſe that caſt an Eye about them wherever they come, to ſee if any Thing lies in their Reach at a Houſe-door; or, if there are any Cloaths hanging abroad to dry, that they may ſafely carry away; obſerving, at the ſame Time, all Opportunities, where their Men may come the following Night for ſtealing Fowls, or any Thing elſe that ſuits their Turn; and, indeed, theſe Women are not only ſerviceable to themſelves by Day, they alſo ſometimes perform their Parts by Night. ——A Parcel, both Men and Women, having ſeized a fat Sheep or Lamb, were dreſſing it at the Corner of a Field, with Wood they got out of Hedges; while this was doing, about Break of Day, the Owner, ſeeing a Smoke, makes towards the Place; the Gang, ſeeing him, diſpatched one of their beſt Tongue-pads Expreſs, to tell the Man he muſt not approach any nearer, becauſe there was one of their Women crying out, and in ſuch a Condition, that it was not fit for a Man to ſee; on which the modeſt Farmer retired, and left them to regale themſelves on their Pillage, but his Sheep or Lamb.———Again, theſe Gypſies, in the Winter-time, when they get into Barns or other cloſe Quarters, are often ſeen to cook Bullock's Liver, and give it their Children, very likely to ſham Neceſſity, that they may more eaſily deceive the People, and move their Compaſſion. And that they may cauſe a greater Credulity in the Minds of their ignorant Encouragers, one of them is frequently dreſſed up in her Silks,

who, to be ſure, is the handſomeſt and beſt Tongue-pad of their Company; thus ſhe repreſents herſelf as Queen of her ragged dirty Tribe, capable, as they imagine, to ſtrike a Terror into a Country Conſtable, for Fear ſhe ſhould bring an Action of Damage on him for falſe Impriſonment, in Caſe he takes up her or any of her Crew. It has been the ancient Character of theſe Gypſy Impoſtors, that they take Baſtards from Pariſh-officers at ſo much Money a Piece, which furniſhes them with ſuch a Number of theſe, as moves the Compaſſion of ſome Beholders, for they black the Faces and all other Parts of theſe Infants with their common Dye to make them appear their own; and it is for theſe that they buy Bullock's Liver to feed them with, but the Men and the Women eat their better Sorts of ſtolen Meats. To this I muſt add one of their Skits: Some of the Gypſies having obtained Leave of a young Man to lie in his Barn, his Mother, a Widow, that kept his Houſe, was asked by one of their Women, to let her broil a Piece of an Udder, as ſhe called it, thinking to impoſe on the Widow's Belief, to take off her Notice from the Morſel; but the Widow bid her be gone with her half Turkey and her Lyes, or elſe ſhe would have them taken up.

CHAP. XIX.

The Hiſtory of the Man-Gypſy.

IT is certain, that theſe are a Parcel of knowing Villains, that buy a Compoſition of ſteeped green Husks of Walnuts, or Galls and Logwood, or all together

gether, and make a Waſh or Dye, that ſo ſtains their Faces, Hands, and Bodies, as not to come off in a conſiderable Time, for making them appear like true *Egyptians*, who, being true *Africans*, are, in Courſe, ſo Sun-burned, that, Tawny-moor like, they are of a Colour, between a white and black Moor. Thus having naturally black Eyes, and a *Mulotta* Skin by Art, they march out of *London* in ſeparate Gangs, ſome for the Eaſt, others for the Weſt, and the reſt for the South and North-Countries.—I once gave a Lodging to two of them in my Barn, one was an old Fiddler, called *Boſwell*; the other a young Man that went about to dreſs Hats, a Trade or Calling he was brought up to, till he took on with a Company of Gypſies, who promiſed him all Happineſs. This he did for Fear of being taken up as a Vagrant, juſt as the late ſevere Act took Place, for theſe had no Women with them; and it was this young Fellow, that ſaid he would play with any Man in *England* at the Game of Put, and was ſure of beating him at it, if he did not underſtand it as well as he. Now it happened, that the Stains of their Faces were ſo wore out, that they appeared almoſt yellow. After this, in about two Years Time, the old Fiddler, called again on me, and begged to lodge in my Barn as before; but, ſeeing ſuch a palpable viſible Cheat in his Face, I refuſed him, for it was almoſt as black as a Black-moor, and ſhined like *Japan*, becauſe it had been newly laid on. Now theſe Fellows ſtill travel with their looſe Women in Gangs or Companies, ſome with Horſes and ſome none; and this, becauſe the Act againſt Vagrants is neglected being put in Execution, eſpecially in our Parts, that lie near the great Northern Road through St. *Alban's*; which occaſions our being peſtered with all Sorts of Vagabonds more

than other Places. It is theſe Gypſy-Men, I ſay, to enjoy an idle vicious Life, ſerve as Protectors to their wicked Women; for in Caſe of any Fray, or Taking up for Thievery, they are ready at all Times to pay the Damage, or otherways to make up Matters. ——— In former Days there were greater Numbers of Gypſies than now, as, the *Boſwell* Company, the *Herne* Company, and others. But the late Vagrant Act of Parliament has diſcouraged and thinned them. *Herne* had Cloaths of ſilver Lace, kept a Couple of Race-horſes, was always full of Money, and acted as Chieftain; this *Herne* got ſo much into the good Graces of the Owner of a Brick-kiln, near *Berkhamſtead* Common, that he had Leave to take Poſſeſſion of the Brick-kiln-houſe, which was then uninhabited; and here it was that he reſided near half a Year together with near thirty Gypſy-Men and Women, who ſtroled about the Country, and lived by their wicked Wits. Now, it happened while *Herne* was here, that Races were run at *Wards-comb*, juſt by, and here it was that *Herne* won a great deal of Money by a particular Bite. He run a little black Horſe againſt a Gentleman's large grey one, and ſuffered himſelf to be beat, to draw in a greater Bet, in the following Manner: At the Nick of Time a Man rides by the Place on a Market-pannel with a hempen Halter on a Bay-horſe's Head (a common Road lying through the Race-ground) in a moſt ſlouching careleſs Poſture; and, to make him appear a mere Market-horſe, he thumped him every now and then with a Broom-ſtick: This accidental Horſe, ſays *Herne*, ſhall run with the grey Horſe for ſo much Money; accordingly great Bets were laid againſt this Horſe, and then the Pannel was taken off, and a little Saddle and a Rider put on; but, as ſoon as the Drum

Drum beat, this Bay-horſe diſcovered himſelf trained up for the Purpoſe; for he immediately put himſelf in another Poſture, and run ſo ſwift as to give the grey Horſe no Share of the Prize. Thus this Arch-rogue and his Confederate managed the Cheat in ſo nice a Manner, as to take in a great deal of unwary People's Money. Theſe Enemies to all Countries, where they come, ſtill continue their Travelling; for, though theſe and all other Vagrants were thinned by the laſt Act, paſſed, I think, in 1738, yet they now ſeem to be near their old Numbers. It was but this Summer, 1742, that a Gang of Gypſies took up their Reſidence near *Ivingboe* Common, where they lay on Beds on the Ground, while their Mules and Aſſes fed on the Common, to the Prejudice of the lawful induſtrious Commoner. A hard Caſe indeed, that the Country ſhould thus ſuffer by a Parcel of Rogues, their Trullops, their Children, and their Cattle, who live like Drones, on the Labours of others without paying any Rent or Taxes! Now, you may wonder what the Gypſies do with ſo many of the Quadrupedes. They are not only to carry the Women, and Children, and their Baggage, but alſo to bear away Part of a dead Sheep, or Lamb, Geeſe, Turkies, Hens, or other ſtolen Goods, which they can ſo pack up as to prevent a Diſcovery, unleſs the Search is made too hot; and, as they ſteal them in private, they dreſs them in private, for they commonly roaſt or boil under a Hedge, to the Loſs of our Wood; and, that theſe Gypſy-Men or Rapperees may not be diſcovered, they ſtrole, Fox like, to diſtant Parts in the Night-time for their Prey; and, if they are apprehenſive of great Danger, they can take to their Horſes and Mules, and ſoon be out of Reach

Reach; otherways they lie under Hedges in the Day-time, or in Woods or other obſcure Places. It was but in the Year 1740, that one of their Chieftains was condemned to be hanged at *Ayleſbury* Aſſizes for Horſe-ſtealing, and, on the Day this capital Villain was hanged, there aſſembled at the Gallows a large Crew of theſe Gypſies, in order to reſcue his Body from the Surgeons; but they were too many for them, for they got his Body to *Berkhamſtead*, in order to anatomiſe it. In ſhort, theſe Miſcreants and their looſe Women, for, no doubt, all of them are ſo, as they lie and heard together in a promiſcuous Manner, travel *in Terrorem*, to the Country People, for when a Company of them appears, they generally give the Alarm-word one to another, by ſaying,—*Take Care of your Poultry and your Linnen on the Hedge, for the Gypſies are come.*——It is a Pity, therefore, that ſome ſmart Law is not made penal enough to prevent theſe Plunderers going about to ſeek whom they may pilfer from, or otherways bite of their Money or Goods.

CHAP. XX.

The Sham Mad-Man *Vagrant.*

ALTHOUGH I have in the foregoing Gypſy Account expoſed one of the worſt of Villains, yet I here preſent the World with the Character of another in ſome Reſpects worſe than him: *The ſham Mad-man Vagrant.* There are two Sorts of theſe, one that has actually been in *Bethlehem*, and diſcharged as cured; and the other that

that never was there, nor ever had Reaſon for it. However, both theſe are Impoſtors, particularly the latter Sort; for both of them travel about the Country all the Year long, and in hot Weather, commonly appear in a Holland Shirt, dreſſed with divers coloured Ribbons, a large Ox-horn hanging by their Side, and a ſeven or eight Feet Quarter-ſtaff in their Hand. As each of theſe travels by himſelf, he calls at every Houſe that he thinks worth his While, and there, *nolens volens*, makes a forcible Entry, if the Doors are only on the Jar, and not locked or bolted. Here he comes in, and, for the moſt Part, into the inner Room of the Ground-floor (ſo bold are theſe impudent Wretches) and there demands his Rent, or what he calls a Copper *Guinea*, or ſomething for Couſin *Tom*. Now to obtain his Deſire, he acts in this Manner the Dragoon with one Hand, and the Courtier with the other; and, what he would have exceed both, is, his being thought a Mad-man, and paſt the Law, if he kills any Body. This he mimicks on Purpoſe to extort Money, Victuals, or Cloaths, from the laborious Farmer's Wife, or her Daughter, or young Sons or Servants, and eſpecially when he can get into an alone Houſe, where, perhaps, none but the Woman and her Children are at Home; here he appears like a commanding Officer, *in Terrorem*, and not ſatisfied, unleſs he comes off well furniſhed. It is this monſtrous Vagrant that is apt to cauſe Women to miſcarry, and frighten others into Fits; it is he that is the Bugbear of the Country, and with whoſe Character ſome ſilly Women make their Children afraid to diſobey their Commands; and, if the Maſter of the Houſe, or his ſtout Servant-man, diſputes his Entrance, he ſeemingly makes

makes ready his Quarter-ſtaff, and ſhowers a Volley of ill Words at him. In ſhort, it is this Fellow, that ſo emboldens himſelf, with the Thoughts of being exempted from the Penalty of the Law, by his endeavouring to make the Country believe he is a Mad-man, that he very audaciouſly preſumes on no one's proſecuting him, or taking him up for a Vagrant, though, in my humble Opinion, he ought, above all others, to be ſuppreſſed with all Expedition.

CHAP. XXI.

The Sham Mad-Woman *Vagrant.*

THERE are a greater Number of theſe than of the Men, that travel, for the moſt Part, in *Buckinghamſhire*, *Hertfordſhire*, and *Middleſex*; for in my Travels, I have obſerved, that, in no three Counties that I ever was in, there are a tenth Part of Vagrants travel, as in theſe. Theſe Trampers dreſs themſelves after ſeveral Ways; ſome wear a black Hat, others a black Cap, others with a Ribbon in their Hair, others bare-headed, to make themſelves appear in a diſtracted Condition, as much as they can. It is few, and very few of theſe, that are real Objects of Charity; thoſe that are, are they that have been in *Bethlehem*, or other Mad-houſes, and diſcharged cured or incurable. Now as few Things are without their Counterfeit, ſo there are thoſe that imitate them; and, when their Condition is called in Queſtion, they anſwer with Lyes they have learnt as they lie rough in Barns with others;

others; but, as I have often detected ſeveral of them in their Diſcourſe, they ſhun my Houſe almoſt like an Inquiſition. Theſe impoſe on ignorant People by telling them that they pay ſo much a Week to come out of *Bethlehem*, and muſt return into it by ſuch a Day, or elſe be confined afterwards, or other Falſities, to the Scandal of one of the beſt Charities beſtowed in *England*. Theſe, like the Men, make forcible Entry, and, though not ſo frightful as they, yet they tenaciouſly keep dunning or worrying you till they obtain a copper *Guinea* for Couſin *Betty*, as they call it. But I muſt ſtop my Pen for Want of Room, or elſe I could give a voluminous Hiſtory of theſe pernicious Vagrants; however, I hope what I have here written, will be enough to encourage a Bill to be brought into Parliament, for thoroughly curing theſe and other Evils I ſhall hereafter take Notice of, that the Impoſtor Vagrant may be ſuppreſſed, and the real Object be duly provided for, better than a poor Tradeſman was in a Work-houſe in the Suburbs of *London*, whom I went to ſee in the hard Winter, 1740, where the People told me they had but two Ounces of Beef, beſides Broth and Bread, allowed to a Man a Day for Dinner; but the Man died, and, as the Apothecary told me, whom I employed to look after him, for mere Want for the moſt Part of good Bedding; for, having a Diarrhea on him, they laid him only on Straw, and gave him neither Medicine nor any Thing but the Allowance of the pooreſt Object.

CHAP. XXII.

Of the POTATOE.

THE Engliſh *Way of preſerving Potatoes.* This moſt uſeful, healthy Root, or Earth-apple, ſo eaſy to plant, and ſo profitable in its ſeveral Uſes, is now got into ſuch a general Eſteem almoſt all over *Europe* and *America*, as to be eaten from the Beggar to the King; and of its Propagation I intend to give a large and new Account in the Month of *February*, as it is practiſed both by *Engliſh* and *Iriſh*; and, in this Month, of digging them out of the Earth, and preſerving them for future Service: For, notwithſtanding the Potatoe is much more planted of late Years in *England*, than formerly, yet no Author whatſoever has hitherto given a true Account of the different Sorts of Potatoes, nor of their ſeveral Natures and Managements, though it is ſo neceſſary, that, without this Knowledge, there is no ſuch Thing as improving this Root in its higheſt Perfection. About *Michaelmas*-time is the common Seaſon of getting the Potatoe out of its natural Bed; for, if it were delayed much longer, the Froſts might come on ſo ſevere, as to cauſe them to run to Water and rot, for rather before this Time the Haulm, or Stalk of the Potatoe, will be withered, and the Berries or Seeds become of a yellowiſh, or blackiſh dead ripe Colour. And, though I mention *Michaelmas* for the Time of taking them out of the Ground, yet theſe Roots may be dug up for any emergent Occaſion the latter Part of *Auguſt*, or Beginning of *September*. Some have thought, that mowing off the Haulm, when it is pretty high, will contribute to enlarge

enlarge the Potatoe, becauſe they ſay, that the Nouriſhment that this draws robs the Root; but this I cannot commend, unleſs I had a due Experience of its Succeſs, any more than I would Carrot or Turnep-tops: For my Part, I never cut off the Haulm till I take up the Root, according to the Practice of the *Iriſh*, who generally follow the ſame Rule. The ſooner they are dug up, the ſmaller they are. Some let them lie in their natural, original Bed of Earth all the Winter. By covering them with their own Haulm, or with Fern, or both, or alone with Straw, if a mild Winter happen to follow, they may be ſafe enough, and eat very ſweet and freſh. This Management may be ventured on, where the Potatoes are planted and kept for a private Uſe; but it will not do for a Tenant, whoſe Rent and Livelihood depend on the Field-husbandry; therefore he muſt obſerve to begin the Work of digging up his Potatoe-crop in a dry Time, with a three or four-tine Fork; and, as they are dug up, they may be gathered by Women, Girls, or Boys, for being waſhed, and then dried in the Sun for two, three, or more Days, and thus made fit for Sale in the Market. But, to keep Potatoes ſound all the Winter and Spring-ſeaſons, he ſhould do as they do about *Nottingham*; here their uſual Way is, between *Michaelmas* and *Allhollantide*, to dig Holes or Pits in the Ground, where it is of ſuch a dry Nature, that the Wets cannot make a Lodgment: Here they dig a Pit or Trench three, four, or five Feet deep, narrow and long, which they line on all Sides with Wheat-ſtraw, and then fill it up with Potatoes to the Top. It is then that they get Mould ready, and, after a Layer of Wheat-ſtraw, they put it over all, in a Ridge-faſhion, to keep out the Froſts. Thus they ſecure them till *March*, and longer; and, being thus ſecured

from Froſts and Wets, they dig them up as they want them for Sale. Others of them, who enjoy the Conveniency of a dry Cellar, and have not great Quantities to keep, lay them in Sand, or other dry Earth, to ſecure them from the Severity of Froſts, for in theſe Parts their Cellars are cut out of a rocky Subſtance, and made very deep; which, being of a warm dry Nature in Winter, and cool in Summer, preſerve them in good Order a long Time. Somewhat after this Manner they manage their Potatoe-crops about *Hackney* in *Middleſex*, and *Stratford* and *Barkin* in *Eſſex*, where their Ground is of a light gravelly, or ſandy Nature, very proper for preſerving them by Burial in Field-pits, and where they lie ready to be dug up, ſome at a Time, according to their Wants, for ſupplying *Leadenhall*, *Newgate*, *Fleet-ditch*, and *Covent-garden* Markets; for (if I miſtake not) here are the largeſt and neareſt Plantations of Potatoes to *London* of any where. Likewiſe I obſerved in my Travels, that, near *Kingſton* upon *Thames*, they ſet a great deal of Ground with theſe Roots; where, as their Land lies low, they are forced to plow and lay it up Ridge-faſhion, or, as we call it in the Vale of *Aylesbury*, Plowing it by ridging up, and caſting down with the Foot or Swing-plough to preſerve it dry; and, to keep it ſo, they lay on great Quantities of Dung to hollow their ſtiff Soil, for here their Ground is of the cloſe, heavy, black Sort; and by thus ſetting them in a fine Earth, and houghing them twice in due Seaſon, they generally get good Crops in a kind Year. This is an Inſtance of the great Conveniency many enjoy, who live near a great Market-town, that gives the Farmer a conſtant Opportunity of purchaſing Dung in large Quantities; which another cannot do, that lives remote from ſuch a Place, and therefore is incapable of carrying on the Potatoe Hus-

Husbandry in any Perfection. But here the Farmer has a double Advantage of getting Dung, for he is not only ſupplied with it from this Town, but has this, or any other Dreſſing from *London*, by Water-carriage, at a moſt cheap Rate.

The Iriſh *Management of Potatoes.* It is well known, that the *Iriſh* are the chiefeſt Planters (and I believe I may ſay the beſt) in *Europe*, and the more for being drove to it by Neceſſity; for they were always poor ignorant Huſbandmen, till, of late Years, ſome of their learned and able Men have ſo encouraged Huſbandry, that it has put many of their Farmers on ſtriving who ſhall outdo the others in procuring the beſt Crops of Grain. And this Encouragement they have carried ſo far, as to reward the Perſon who can come to Market ſooneſt, and bring the moſt of the beſt Commodity to it. Now it is this excellent Contrivance, beyond all others ever before practiſed, that has made their Farmers get out of their old round-about Ways of Farming, and practiſe new Improvements, to the vaſt Advantage of their Kingdom in general; as appears by their curing thoſe many uſeleſs, dangerous Bogs, and cauſing them to bear Trees, Shrubs, artificial Graſſes, and Corn, where hardly any Thing grew before. But, above all, their exquiſite Diligence and Art are to be admired, in bringing in a little Time their Linnen Manufacture to ſuch Perfection, as very much to ſupplant or hinder the Importation of *Holland* and *French* Linnen, by the great Quantities they ſend to *England* every Year; and I ſuppoſe we ſhall not only be ſupplied with the beſt and cheapeſt of Sheeting, Shirting, and other ſuch Neceſſaries from *Ireland*, but alſo with Cambricks of the fineſt Sort. So their Potatoe-plantations are not a little improved of late Years, for now they are Maſters of,

at

at leaſt, four Sorts of them, which, in the *Month* of *February*, I intend to write a particular Account of, and at preſent obſerve, that their beſt Potatoe is the *Caſtonian* or *Munſter* Potatoe.

CHAP. XXIII.

The Character of the Caſtonian *or* Munſter Potatoe, *and the great Service it did in the Famine of* 1740.

THIS Potatoe is generally of a light yellowiſh Colour; but by ſome it is called the white large Potatoe (for the largeſt of theſe have weighed above a Pound-weight) and grows with a broad Bottom and narrow Top in an upright Poſture, though it runs the deepeſt into the Ground of all others, even above a Foot, and therefore preſerves itſelf from the Froſts better than any. This was the only Potatoe, that withſtood the great Froſt of 1739-40, while it lay Abroad, whereby many of the poor *Iriſh* were kept alive, while Thouſands of others periſhed for Want; for, where an *Iriſhman* can enjoy a Potatoe-plantation and a Cow, he thinks himſelf happy enough. When all the other Sorts of Potatoes were frozen and rotted into Water, this became a Subſiſtence, becauſe, contrary to all others, this grows downwards, while the reſt grow upwards, even to the Surface of the Earth, by the Time they are fit to dig up; which was the Occaſion of this fatal Misfortune. It is likewiſe the Maſter-Potatoe for living longeſt in the ſame Ground, even twenty, or thirty Years. There was a Gentleman, that lived two Miles from *Newky*, in the County of *Armagh*, who had theſe

theſe Potatoes in one and the ſame Piece of dry Land five and thirty Years, for in a wet Soil they will ſtarve and come to little; yet, if the Ground is cleared of this Potatoe after two Crops, and a new Plantation is made of the ſame, it will be an Improvement, as I intend to ſhew hereafter. Some think this Potatoe is beſt boiled in two Waters, if it is put in whole; one to take off the Strength and make it mild, and the other to make it ſoft. Others think one Water ſufficient, eſpecially if they are firſt cut in Pieces; otherwiſe, they ſay, this Potatoe being very large, the hot Water cannot eaſily enter it. It is certainly a very ſweet dry Potatoe, that eats ſhort and pleaſant, and therefore it is a Pity we do not get it into the adjacent Parts of *London*, as I hear they have done about *Liverpool*, in *Lancaſhire*.

CHAP. XXIV.

How the Iriſh *dig up and preſerve their* Potatoes *againſt the froſty Seaſons.*

FIRST. Here they commonly dig up their Potatoes with a Spade, and not with the three-tine Fork, as the *Engliſh* for the moſt Part do; for the *Iriſh* are of Opinion, that, though the Spade cut ſome in two, thoſe that are left behind become the better Seed for another Year; and, if the Potatoe-bed is to be wholly deſtroyed, the Pieces, as well as the remaining intire ſmall ones, may be gathered up on the next digging or plowing of the Ground for ſowing it with bare Barley, or other Corn, as is their uſual Way. The other three Sorts of Potatoes are eaſier got out of the Ground, than the *Munſter* deep-rooted Potatoe, becauſe

becauſe the former Sorts lie almoſt on the Surface of the Earth. When they have thus dug, or plowed them up, the next Thing is to preſerve them ſound for their Family Uſes the reſt of the Year; and, in order to do this in the greateſt Security, ſome dig a Pit or Hole in the very Ground-room they lie in, that the Potatoes may be kept as near the Fire as poſſible; and yet even this Contrivance did not, in many Places, wholly anſwer their Expectation in 1740; for the Froſt was ſo long violent, as to penetrate and damage their uppermoſt Parcels, eſpecially in their leaſt Sort of Cottages, while the *Caſtonian* Potatoe remained ſound in its deep-lying, original, covered Bed. And thus this latter Potatoe becomes the moſt convenient Sort of all others for thoſe poor People to plant, who have not Room enough for ſtoring and keeping Potatoes ſound for their future Service.

A Second Way, is performed by digging up Potatoes early in *Auguſt*, and burying them in a dry Pit, as I have before obſerved. Now this Pit is not to remain in the open Field, with only a Covering of Clay, Sand, and Fern, which in many Places they beat together, that it may lie hard and cloſe in a Ridge-ſhape, the better to keep out Froſts and throw off Wets; no, it is for this Purpoſe: After the Pit is lined with Straw, and filled up with Potatoes, they erect a Cock or Stack of Hay or Corn over it, which they ſuppoſe will keep off all Vermin, as well as all Froſts and Wets, and thus they ſecure the Potatoes ſound till the Spring-ſeaſon following, when the Hay or Corn is to be removed off the Spot of Ground, and they have Liberty to dig out their Potatoes for bringing them Home, or otherways diſpoſe of them according to their Convenience. And here it is to be obſerved, that, when they

they bury Potatoes in this Manner, they are at firſt deſigned to lie here for their latter Uſes; and, accordingly, they provide a Store in another Place for their more early Spending, as I am going to ſhew.

A Third Way. The laſt mentioned Way is reckoned by *Iriſhmen* to be the ſecureſt of all others, for preſerving their Potatoes againſt all Accidents; but, as they cannot come at them in the forward Part of the Year, they, to ſupply this, dig Potatoes up at *Michaelmas* or thereabouts, and pack them in Heaps in Barns, or Hovels, or in ſome Out-houſe, with Straw or other warm Covering to keep off Froſts, by which Means they can take them out at any Time for their preſent Occaſions, and ſo on, till their Pit-potatoes come in Seaſon.

A Fourth Way is this: They lay a Parcel of Potatoes at a Time over a Malt or other Kiln to dry, and here they are dried, and ſmoaked in the Drying; but, as they let them lie but half an Hour, they are not much touched with the fulſome Vapour; for, if they were to let the Potatoes lie much longer here, they would be unfit for any Thing but Hogs. Others dry them in the Sun, as the ſweeteſt Drying that is; and, when they can be thoroughly done this Way, they enjoy them in the greateſt Perfection. And though, when they are dried by the Kiln, they may ſhrink and ſhrivel a little, yet in the Pot they will ſwell, and return to their natural Bigneſs.

A Fifth Way, is to dry Potatoes on the Hair-Cloth of a Cockle-oaſt-kiln; which Kiln is built very lofty, and ſo ordered that the Fire cannot hurt neither Malt, Hops, Potatoes, nor any other Thing that is dried thereon; becauſe the Fire that is made Uſe of for this Purpoſe is confined in

a Trunk of four caſt Irons, about an Ell long, leſs broad, and an Inch or more thick. Theſe are ſo heated by the Fewel of Sea-coal, or any other Sort (no Matter which) as to make them almoſt red-hot, from whence iſſues a moſt naſty fulſome Smoke, that is conveyed away from the Fire, through Flews of Brick-work, built and fixed to the Side-walls of the Kiln-room. In this Manner thoſe Vegetables that lie on the Hair-cloth muſt certainly dry ſweeter and more regular, than on any other Kiln whatſoever; for here they are cured by hot Air, which, though artificial, may be ſaid to be next to the ſweeteſt Way of all Drying, the Sun-drying; but this Way is utterly unknown to the *Iriſhman*, and indeed to moſt *Engliſhmen*. However, as it is my incumbent Duty to do all the Service I can, both to *Iriſh* and *Engliſh*, I mean, and *Britons* in general, I would adviſe all Perſons, who have Occaſion for ſuch ſweet and regular Drying of Wheat or any other Grain, Hops, Potatoes, Madder, Saffron, Onions, and many others of the rooty Tribe, and whoſe Purſes will admit of it, to endeavour the Erecting of theſe Kilns with all Expedition, that our *Britain*, and *Ireland*, and Plantations abroad, may enjoy thoſe many Vegetables in the longeſt, ſweeteſt, and moſt pleaſant Order, that now are ſo damaged by being raw dried, or burnt or ſmoaked, as to render them moſt nauſeous and diſagreeable, and even of leſs Value than they would be, if dried on this moſt valuable Sort of Kiln. Yet, for all that I have here wrote in deſcribing this ſerviceable Kiln, I know, that moſt Maltſters will not approve of the ſame, becauſe it is againſt their Intereſt, on Account of its tedious Drying, for the great Maltſters, eſpecially, are for drying great Quantities in a little Time; and, by Reaſon

Reaſon this delicate Way will not do it, they reject it. But, I think, I have wrote enough, here and in other Works, to let People into the Knowledge of ſeveral Impoſitions committed by thoſe Maltſters who endeavour their own Intereſt before their Fellow-creatures Health and Pleaſure, or elſe they would not be guilty of the two extreme Evils, of drying Malt, either raw or burnt, or blowed up to deceive the Eyes of the ignorant Buyer.

CHAP. XXV.

The different Way of Dreſſing and preparing Potatoes for Family Uſes.

IT is now become common, even among Quality, to make Uſe of this Earth-apple as a Supper-food great Part of the Winter-ſeaſon, by roaſting them in Embers, and eating them with Butter and Salt, in the Manner a boiled Egg is; and this, becauſe of the light Nature of its Food, and the contrary Quality it has to the Breeding of the Scurvy, which cauſes it to induce Repoſe much better than the ſaline, ſcorbutic, heavy Nature of Fleſh. And ſo careful are many of the knowing Sort of Perſons at this Time, that, out of their paternal Affection to the future Health of their Childrens Bodies, they hinder them as much as they well can from eating Fleſh at any Time, and, inſtead thereof, encourage them to the feeding on Vegetables, and particularly and moſt of all on the Potatoe. Accordingly, if this Oeconomy was more obſerved among all Sorts of Perſons, there would not be ſuch a diſeaſed Progeny, as are commonly

brought into the World by the hereditary Diſtempers of their Epicurean Parents; yet ſo fond are ſome of the Ignorant of Fleſh-Diet, that I have known a Perſon to enjoy it in its full Extent, and never eat Bread with it. Another, whoſe Function I ought and do conceal, would conſtantly ſpoon up the Gravy of Meat where Decency did not hinder him; but he dearly paid for this Epicurean Fancy, for he became ſo afflicted with the Gout, that one of his Intimates told him he ought to be conſtituted Preſident of the Gouty Fraternity. There are many other Ways of preparing Potatoes for Eating beſides roaſting them in Embers, or boiling them, and eating them with melted Butter, as I am going to ſhew.

A Second Way of preparing and dreſſing Potatoes. When Potatoes are to be boiled, put them into a Pot of cold Water, and allow them enough of it, elſe they will crack and let in the Water to the Loſs of their beſt Taſte; and for this Purpoſe Spring-water exceeds all others, as performing it in the beſt Manner, provided the Potatoes are not boiled too furious in it, for a quick Fire is very apt to break them, before they are boiled enough. In my travelling between *Briſtol* and *Bridgwater*, I put up at a lone Houſe, where, aſking what I and my Man could have to eat, the Woman told me, ſhe had nothing but Bacon and Potatoes. I was ſurpriſed to hear of ſuch a Diſh at that Time of the Year, being the Month of *June*, for, in *Hertfordſhire* and many other Countries, they have no Notion of eating them in the Summer-time, becauſe they have not Skill enough to preſerve them good all the While; but this Woman did, and her Way of doing it was this: Near *Lady-Day*, ſhe ſaid ſhe dug up all her Potatoes, when they

they appeared a little ſprouted; upon which ſhe immediately waſhed them, dried them, and packed them up in a ſquare Heap on a wooden Floor along the Sides of the Walls about the Room, where the Fire ſhe uſually made for her daily Purpoſes very much contributed to their Preſervation, though they lay two Feet high and two Feet broad; here they grew a little afterwards, but not ſo much, but that they eat very well, according to the Woman's Character of them, who told me beforehand, they would eat the more mellow, lighter, and ſweeter for being thus ſprouted; and, that they might anſwer the better, ſhe fell to paring them directly, before ſhe put them into the Pot; and I muſt needs ſay the Bacon and Potatoes, as ſhe ordered them, proved a pleaſant Dinner. But what I am here farther to remark is, that in theſe Parts they are ſuch Lovers of Potatoes, that they employ their greateſt Care in their Propagation and Preſervation; inſomuch that at *Stoke-Market*, in *Somerſetſhire*, on the ſixteenth Day of *June*, 1737, they were ſold for three Shillings a Buſhel, and, there and at *Briſtol*, they enjoyed them till near *Michaelmas*. An Example, I ſhould think, ſufficient to encourage the univerſal Planting and Preſerving of this excellent Root, ſince, by this Precedent and what I have wrote, it plainly appears, that Potatoes may be enjoyed as Meat or Sauce all the Year. Others ſay, that, if Potatoes are peeled or pared like a Turnep, before they are boiled, it will make them taſte watery and inſipid; but, if ſome Salt and beaten Spice be firſt put into the Water, it will give them an agreeable Reliſh, provided they be eaten directly.

A Third Way. Others, when they are boiled, have a Sauce ready to put over them, made with Butter, Salt, and Pepper; others uſe Gravy Sauce, others

others Ketchup, ſome eat them boiled with only Pepper and Salt, others cut the large ones in Slices, and fry them with Onions, or ſtew them with Salt, Pepper, and Ale, or Water.

A Fourth Way: It is alſo a very common Way to boil them firſt, then peel them and lay them in the Dripping-pan under roaſting Meat.

A Fifth Way, as I remember, the *Welch* follow very much, in *Caermarthenſhire* in particular; they bake them with Herrings mixed with Layers of Salt, Pepper, Vinegar, ſweet Herbs, and Water. Alſo they cut Mutton in Slices, and lay them in a Pan, and on them Potatoes and Spice, then another Layer of all the ſame with half a Pint of Water; this they ſtew, covering all in the Time with Cloths round the Cover of the Stew-pan, and account it excellent Victuals.

A Sixth Way. The *Iriſh* have ſeveral Ways of eating them. The poorer Sort are often glad to eat them with only Salt, after they are boiled, others with Butter and Salt, but moſt of all with Milk and Sugar as the moſt delicious and moſt common Way of all others; and ſo when they can get a Piece of Pork, Bacon, or ſalt Beef, they account it an excellent Diſh with their boiled Potatoes.

A Seventh Way, is to maſh boiled Potatoes and then put them into Bacon or Pork-Broth, with Pepper, Spice, and ſweet Herbs, and they will make a Soup like Peaſe-ſoup.

An Eighth Way, is to maſh boiled Potatoes as fine as can be done; this with Spice, ſweet Herbs dried, and beaten ſmall, and mixed with Butter and Salt, makes a delicate Pudding for Rabbits, Hares, Fawns, Jacks, or Mullets, in the cheapeſt Manner that can well be; I mean, by putting and

ſowing

ſowing it up in their Bellies, for being roaſted in them.

A Ninth Way, is to maſh them after the Potatoes are boiled, and then with a Mixture of other Ingredients, they will make a Compoſition for Skin-puddings.

A Tenth Way. Potatoes, boiled, pulped, and mixed with Milk and Salt into a Dough, will make Cakes, if baked.

Potatoe Bread. This Root has often been employed, like the Turnep, towards making Loaves of Bread in the ſcarce Times of Corn. Take as much boiled Pulp of Potatoes, as Wheaten Flour, Weight for Weight, and knead them together as common Dough is done for Bread.

Potatoe Pudding. Boil, peel, and beat them to a Maſh in a Mortar. Take three Pounds of this Pulp, and add to it one Pound of Butter, whole Oatmeal, Currants, ſix Eggs, and Pepper, and Salt, and grated Nutmeg, and beat all well together in the Mortar for Boiling or Baking; when it is done, make a Hole in the Middle at Top, and pour in melted Butter. ——— Another ſays, Add to the Pulp of Potatoes a fourth Part Weight of Marrow, and ſeaſon all with Orange-juice, and Orange-flour Water, beaten Spice, and Roſe-water; lay this in a prepared Paſte in a Diſh, and bake it in a gentle Oven; when ready, pour ſome ſweetened Cream over it. ——— Or, mix Potatoe-pulp with Apples chopped ſmall, Cream, and Loaf-ſugar, Powder of Cinnamon and Cloves; put all into a Paſte and bake it in a ſlow Oven. ——— Or, mix Potatoe-pulp with fat Bacon, finely cut, Oatmeal whole, Currants, Pepper, and Salt, which bake in a Pan.

To fry Potatoes. When they are boiled and ſliced, have Yolks of Eggs ready beaten up with a grated

grated Nutmeg or two. When the Pan is hot, you muſt dip them into the Yolks of Eggs and charge your Pan; when they are fried on both Sides, pour over your Layer of Butter, Vinegar, Sugar, and Roſe-water.

Potatoe Fritters. Boil and then mix the Pulp with Milk, Clover, Cinnamon, and Loaf-ſugar powdered. To this Batter add ſhredded Apples, and fry them like others, in Hogs-lard.—Or, to make them in a ſeaſoned Way, put to the Pulp Cream, and mix Pepper and Salt and Currants with them for a Batter, or, if you think fit, chopped Beef-ſewet may be added.

Potatoe Pye. Boil Potatoes (not too much) cut them forth in Slices as thick as your Thumb, ſeaſon them with Nutmeg, Cinnamon, Ginger, and Sugar; your Coffin being ready, put them in over the Bottom; add to them the Marrow of two or three Bones, ſeaſoned as aforeſaid, a Handful of ſtoned Raiſins of the Sun, Dates, Orangado, Citron, with Ringo-roots ſliced, put Butter over it, and bake them; let their Layer be a little Vinegar, Sack, and Sugar, beaten up with the Yolk of an Egg, and a little drawn Butter; when your Pye is enough, pour it in, ſhake it together, ſcrape on Sugar, garniſh it, and ſerve it up.

The Farmers Way of Dreſſing them. Our common Way of dreſſing Potatoes is, to boil them, peel them, and ſlice them; when this is done, we put them into a Diſh with boiled Salt-fiſh, or with a Piece of Bacon, or with pickled Pork, or with powdered Beef, or under a Shoulder or Leg of Mutton; in ſhort, this is the beſt Root in the World for ſupplying the Place of Bread and Meat, becauſe it is nouriſhing, pleaſant, and cloying, and thus they will very much leſſen the Charge of Fleſh; ſo that the Farmer who does not

furniſh

furniſh himſelf every Year by a Plantation of Potatoes, I am ſure, is not his own Friend.

The Gaddeſden *Way of preparing Potatoes.* Moſt or all of our *Gaddeſden* Farmers, every Year, ſet a Piece of Ground with Potatoes, for only their own Uſe, as well knowing the great Benefit they are of, not only for a Family Supply, but alſo for the Preſervation of their Health. Here our Way is to dig them up about *Michaelmas*, and, as they are dug up with the Dirt about them, they dry them in the Sun; and, when they are dried enough, they lay them in a Bed of Wheat-Straw in a Garret, or ſome dry Place, and cover them with Wheat-Straw; thus, by a Layer of Straw and a Layer of Potatoes, they generally preſerve them ſound all the Winter, for no Root requires drier Lying than the Potatoe; and they are of Opinion, that the dry Coat of Dirt proves a Nouriſhment to them, and at the ſame Time helps to keep them warm. Here our Soil is a red Clay under a Surface of Haſle-mould, about a Foot or little more deep, ſo that they cannot keep them buried in this wet Soil ſound; nor have they a Notion of preſerving Potatoes by Interment, no more than the Gardener had, who lives about ſeven Miles from me, and who, having a Potatoe-bed lying next to a Stack of Hay, had them preſerved ſome Time by the Fall of it; which enabled him to ſell Potatoes at *Hempſtead* Market in the Spring, 1740, to the Wonder of the People, becauſe none of his Fraternity of Gardeners, though, like him, poſſeſſed of ſandy Grounds, yet ſaved any ſound in that terrible froſty Winter, at leaſt not ſo many as were worth bringing to Market.

Potatoes good for Cattle, &c. Potatoes will feed Hogs fleſhy, but the Fat, like other looſe fed Meat, is flaſhy, and will boil away too faſt in the Pot; therefore more fitting to feed Store-

hogs, Pigs, and Hounds, and alſo for making Starch.

CHAP. XXVI.

Of SHEEP.

THE true and profitable Management of Sheep for the Month of September. Sheep and all Beaſts, next to Horſes for Plowing and Carting, are the moſt neceſſary of all others to the Farmer, for the Profit of their Folding, for their Wool, and for their Fleſh; yet, to make this Beaſt anſwer to the greateſt Profit, is what all Farmers aim at. On this Account it is that at this Time I employ my Pen, and, if I can contribute any Thing thereto, I ſhall think my Labour well beſtowed.

I know a Yeoman, whoſe Land or Farm is about ſixty Pounds a Year, that, as I remember, kept eighty Ewes and Wethers. Seventy Acres of this Farm were arable, and the reſt Meadow. This Farmer, one Year, happening to overſtock himſelf (notwithſtanding he had a ſmall Common before his Door) he ſuffered a great Loſs by the Death of almoſt half his Flock, that died of the Hunger-rot; for he grudged them Hay, and his Ewes did not care to eat Straw, and his Graſs was eat up before the Winter was half gone, by his three Cows, and four Horſes, and ſometimes with Sheep, ſo that there enſued a great Mortality by red Water, Gripes, and Want of Meat.

Another Farmer, that lived about a Mile diſtant from him, did rather worſe, for this Man kept near

near an hundred Ewes and Wethers, and had only twenty Acres of incloſed plowed Ground; but, having a large Common before his Houſe, he preſumed upon the Feed of that, which in a mild Winter, happened to anſwer his Expectation; but, the hard Winter of 1739 following, I believe he loſt near half his Flock by Want of Food.

Another Farmer about a Mile diſtant from the laſt, that rents about an Hundred a Year of plowed Land, keeps two hundred and ſixty Sheep, with the Aſſiſtance of a ſmall Common and his incloſed Fields. This Man acts the good Husband, as the other two did the bad one; for he always takes Care to ſow as much Clover and Trefoil as is neceſſary to bait his Folding-ſheep all the Summer long. When his Shepherd unfolds, he drives the Sheep on the Common, and there lets them remain commonly till two of the Clock, and then brings them into the Field for baiting them; thus he improves his Ground by ſowing artificial Graſſes, gives his Sheep a Belly-full every Day, and gets his plowed Land folded in the greateſt Extent; and what tends likewiſe very much to his Profit is, the Sheep, by ſuch plentiful Feeding every Day, always are maintained in a fat Condition, which brings me to what I moſt intend by this Chapter, *viz.*

As ſoon as the Corn is got out of the Field, if your Flock conſiſts of a hundred Sheep, draw out twenty or thirty Wethers, and put them into one Stubble-field, where let them feed till they have eaten the Graſs of it about half down; then open another Stubble-field, and turn them in there, and ſo on keep feeding and ſhifting them through all your Fields; by which Time your firſt Field will have got a freſh Bite of Graſs; here continue

till your Turneps be ready to feed, which, if they were ſown forward, will be fit to turn into at *All-hollantide*; and, if the Soil happen to be a dry one, and the Weather dry alſo, your Sheep will ſoon be fat for the Butcher. The before-mentioned Farmer, laſt Spring, 1742, ſold one hundred fat Wethers for one hundred Pounds, that were Store-ſheep but the Summer before, and Part of the two hundred and ſixty.

Now, obſerve, that the Sheep, that this Farmer ſo fats, are generally ſix-toothed Wethers, and ſometimes thoſe of four broad Teeth; theſe are the right profitable Sort for Fatting, and not the two-toothed Sheep, as ſome would fain make out; for, how can a Sheep of two Years old fat ſo ſoon as thoſe a Year or two older, while they are in their Height of growing. If theſe were to be fatted, they muſt in Courſe have the longer Time, becauſe their Food would be ſpent in Growth, as much as in Fatting, very likely. But, when Sheep are three or four Years old, they fat ſooner, becauſe they are then almoſt at their full Maturity of Growth; therefore a fore-toothed Wether-ſheep at three Years old, and a ſix-toothed Wether at four, are certainly the only two Sorts of profitable Sheep to fat, which they will ſoon arrive to, if they have gone through the three ſeveral Stages of Fatting, I have before-mentioned.

This is the Method I pretend to follow myſelf, and it is by this Improvement, that we get our plowed Grounds dreſſed in the cheapeſt Manner poſſible, in a great Meaſure clear of that empty Notion, which I know ſome Perſons have entertained and inſiſted on:—That the Graſs, employed to feed theſe Sheep, is worth as much as the Folding.—This I deny, becauſe the Ground, being

being ſown with Clover, is dreſſed by the Clover-crop and the Sheep while feeding on it; for Clover is called the Mother of Corn, as I every Year prove; for by letting of a full Crop of it grow two Years together, that is either fed or mowed, I ſeldom miſs of a good Crop of Wheat, by ſowing the Seed on only one Plowing of the Clover-lay up; and this without any Dunging, as I have experienced it many Years, particularly in the laſt of 1742, when I had above twenty-five Shocks of good Wheat on an Acre of it.

Hence it may be obſerved, that, where a Farmer has the Conveniences of a near Common for his Sheep, he ought to keep moſt or better all Wether-ſheep (if he does not ſuckle Houſe-lambs) becauſe he can draw out, fat, and ſell a Parcel off every Year with greater Aſſurance, than raiſe a Profit by breeding and fattening Graſs-lambs.

But there is another Way that our *Chilturn* Farmers manage, where they have a Number of Sheep, accordingly; or, when Turnep-crops fail, and that is thus: The *Middleſex* Hay or Graſs-farmers about *Michaelmas*-time uſually pay us Viſits, to know if we have Wether-ſheep to ſell, becauſe they put a great Part of their Aftermeath to the Uſe of fatting them for *Smithfield* Market; and, if we can get them pretty forward in our Stubbles, they will then perhaps fetch twelve or fourteen Shillings a Piece; but when our Turnep-crops miſs, we then are forced to ſell the greater Number to theſe Graſs-farmers, ſo that we have always a Market ready for our Store Wether-ſheep about *Michaelmas*-time.

It is on this Account that we *Chilturn*-farmers are very careful as ſoon as Harveſt is quite over (which is ſeldom till in *September*) to draw out thoſe Wether-ſheep from our Folding-flock, that

are

are forwardeſt, that is to ſay, thoſe that are moſt fleſhy, and put them into our Stubbles, and then either to ſell them, as I ſaid, to *Middleſex* Farmers, or to put them into Turneps; for all forward fattiſh Sheep will ſtay out in the Weather and feed, when the poor ones will ſhrink under a Hedge; and ſometimes ſuch forward Sheep will fat in the very Stubbles without any farther Help, or in the After-paſtures by *Allhollantide*, and then the Turneps will ſerve others; but, if you have any old Ewes that want their Teeth, they well do beſt in Graſs, becauſe they cannot bite a Turnep.

CHAP. XXVII.

Of HOPS.

OF the Picking of Hops. This Vegetable, in this Month, proves the Hop-planter's Loſs or Gain. A good-natured Soil, a kind Seaſon, and a diligent Management have cauſed one Acre to return the Owner from one to two thouſand Weight of Hops in a Year. Happy therefore are they, whoſe large Plantations have eſcaped the Damage of Flies, Lice, Bugs, Blights, Fen or Mould, Storms, and other pernicious Incidents, and who at laſt enjoy a dry mild Time for gathering or picking them in this Month; for it is the Notion of ſome concerned in Hop-plantations, that they are liable to fifty Accidents in a Year, and to the Charge of twenty Pounds an Acre in all.

When Hops look browniſh, feel hard, are eaſily rubbed in Pieces, and ſmell fragrant, they diſcover a full Ripeneſs, which commonly happens the

the latter End of laſt, or the Beginning of this Month. Now he, that is furniſhed with a proper Number of Hands, and all other Conveniencies, is moſt capable of gathering the greateſt Quantities in the leaſt Time; which is the main Article in the picking Undertaking, becauſe by this they may very likely be delivered from theſe Accidents, that ſometimes ruin whole Plantations of Hops, which overtake and befal thoſe who are unprovided at this Time, with a ſufficient Number of Work People.

Mr. *Weekly*, of *Town Malden*, in *Kent*, gives three Half-pence a Buſhel, and ſmall Beer, for gathering his Hops, while others give but a Penny; and it has been obſerved, that this Perſon is commonly bleſſed with a plentiful Crop, and by this encouraging Price he never wants the ready Help of his Neighbours; ſo that, when the Small-pox raged in this Town, in the Year 1738, the Poor of the Place worked for him, while others wanted Pickers.

The *Farnham* Hop is a pale, tender Sort, and more delicate, but looſer than the browner *Canterbury* Hop, and therefore requires a very nice and timely Picking; accordingly, at *Farnham*, they employ their Hands by the Day, and gather ſingle. In *Kent*, they gather by the Buſhel, and then pull Leaves with the ſmalleſt Hops to make Meaſure.

At *Farnham*, they have only eleven hundred Hills to an Acre, and two Poles to a Hill, and two Binds, or Vines, to a Pole. In *Kent* they have three Poles, and three Vines to a Pole, which produces a ſmall Hop; yet here they affirm, that their brown cloſe Hops are endued with that Strength, as will never deceive their Buyer. But, when Storms happen in the Gathering-time, their Violence is apt to break the Branches, bruiſe and diſcolour

diſcolour the Hops, and thus hinder their ſelling for the beſt Price; for their fine greeniſh Colour is the main Incitation for the Brewer to give the greateſt Price for them.

To begin; they cut the Vines at about two, or three Feet high from their Root, that they may bleed the leſs, leſt the too free Iſſuing out of the Sap weaken the Roots againſt the next Year; then, with a wooden and iron Dog (if Hands will not do alone) they raiſe the Poles out of the Ground, and carry them to the Bin to be picked.

The Bin is commonly made of two Poles, ten Feet long, and three, or four Inches thick, faſtened together, at eighteen Inches Diſtance from each End, by two other Pieces, each three Feet long, that ſtand on four Legs, each three Feet and a half high. On this a Cloth is laid, that is broad enough to allow a Bag in the Middle, which, when fixed to this Frame with Tenter-hooks, or Skewers, will receive a great Parcel of Hops, as they are taken off the Vines.

Thus four Perſons may be employed at a Time, on each Side of one Bin, for picking the Vines, as they lie on the Poles a-croſs the Bin: And, when Occaſion ſerves, the Bin may be eaſily removed to a more convenient Place, always obſerving to pick the ripeſt Hops firſt. But, if the Hops are moſtly of one Ripeneſs, by beginning at the Eaſt, or North-ſide of the Plantation, it will prevent the South-weſt Wind from blowing too hard into the Hop-ground; and be ſure to let the Hops be picked clean from Leaves and Stalks, otherwiſe the Damage may amount to more than their Profit of Weight. Alſo, when Hops have been emptied two or three Times a Day into a large Linnen-cloth, ſkewer them up, and carry them to the Kiln to prevent their Sweating; for, if they ſweat, either in the Bin or Cloth, by lying too long,

long, it will be apt to give them an ill Colour; and therefore, if any browner Hops than ordinary come to Hand, put them in a Baſket by themſelves.

Take Care not to gather Hops in the Dew, for, if you do, it will be apt to cauſe Mouldineſs in them; nor cut any more Vines, than can be gathered in about an Hour, if the Weather is like to be rainy; becauſe, if Hops are gathered dry, they will dry with the leſs Fewel, and preſerve their fine Colour the better.

Eſquire *Whitworth*, whoſe Seat is near *Town-Malding*, it is ſaid, has a hundred Acres of Hop-ground, in which he runs up a little Hut, or Shed, at every one or two Bins; and furniſhes it with Wheat-ſtraw for the Pickers to lie on, and a Caſk of ſmall Beer, that they may not loſe Time in Queſt of Drink; and, to make them proceed with the greater Courage, he gives each Perſon, every Morning, a Quartern of Gin, which is thought to be a Preſervative againſt the *Kentiſh* Ague, that generally has the greateſt Power to ſeize thoſe who live the pooreſt. This, with a Penny a Buſhel for Gathering, and a Feaſt when the Hop-work is all done, makes their Hearts glad; and this he never fails of doing every Year, by killing a fat Steer, and allowing them what ſtrong Beer they will drink. Accordingly he finds by ſuch Hoſpitality a greater Advantage, than thoſe, who endeavour all they can to cramp theſe poor People of every Thing, but what they cannot hinder them of; for by thus keeping them with a Bed of freſh dry Straw, and in Heart by his Liquor, *&c.* they will ſerve him better, and before another.

Theſe Sheds are of great Service, not only for giving a dry Shelter and Lodging to the Gatherers, but alſo to ſecure the Hops, by keeping them, in

theſe Places, from the Sun, Rain, and Dews, upon neceſſitous Occaſions: So that thoſe Hops, gathered the Evening before, may be picked clean, early the next Morning, while the Dew, or Rain, is drying off the ſtanding Poles; which will be the ſooner done, if the Poles are ſhaken.

Here, then, will appear the Benefit of a good Number of Hands, that the Hops may be gathered, while fine Weather laſts, and before they are too ripe; for, if they hang too long on the Poles, the Seed will be apt to ſcatter out, and then the greateſt Strength of the Hops will be loſt: For this Reaſon, and that the Hops may attain the brighteſt Colour, the Owner ſtrives to have his Hops gathered, before they are full ripe.

It is ſaid, that four Pounds of undried Hops will return one, when dried; and, when the Work is over, theſe Sheds may be made to hold and keep the Poles dry in the Winter.

As your Hops are picked, carry them to the Kiln; the ſooner it is done, the better Colour the Hops will have; but, if Conveniency does not ſuit, then ſpread them thin on a Floor, and they will ſuffer the leſs; to every three Acres of Hops about five Bins will be neceſſary.

It is a good Obſervation to obſerve any forward Hop, which may be here and there in a Plantation, becauſe ſuch early rath-ripe Hop may be ripe a Week, or more, before the reſt; therefore, in Bloſſom-time, there ſhould be a Stick, or other Mark, fixed to the Hill, that they may be gathered in Time, leſt their Standing too long cauſe an Over-ripeneſs; then, when they are mixed with the greener Sort, it may leſſen the Sale of the whole Parcel: For which Reaſon, if ſuch a forward Sort were tranſplanted into a Part by themſelves, it might be to the Owner's Advantage.

There

There are ſeveral Sorts of Inſtruments, or Dogs, in Uſe for forcing up the Hop-poles out of the Ground; as the Dog, whoſe iron Fork of Teeth is fixed to a Piece of Wood, about ſix Feet long, within eighteen Inches of its Bottom; to which wooden Handle the iron Teeth are faſtened by Screws. One Side of the Fork is ten Inches long, the other twelve; one Inch broad, and three Quarters of an Inch thick. The Fork-part is five Inches wide at Top, and an Inch and half at Bottom. This is the cheapeſt, eaſieſt, and moſt expeditious Inſtrument of all others for raiſing up the Poles out of the Ground, becauſe one Man may manage this alone.

There is another Tool, made like a Lever, about ſeven Feet long, with a forked Iron at its End, furniſhed with Teeth in its Jaws; this, when reſted on a wooden Pillow, will, by its Teeth being fixed on each Side of the Pole, raiſe, or force it out of the Ground.

Another iron Inſtrument is made like a Smith's Tongs or Pincers; the iron Handles are to be four Feet long, ſeven Inches of which Length are allowed for Jaws, with Teeth in them, to grapple and hold faſt the Pole. When the Hold is fixed, then faſten a looſe Hook to the Handles, to keep them in their exact Place; and, when a wooden Prop, or Pillow, is laid upon the Hill, the Joint of the Pincers may reſt on it, for wrenching up the Pole, as is cleverly deſcribed, by the *Dublin* Society, in their Account of Hops.

CHAP. XXVIII.

Of Curing Hops, by drying them on Kilns.

THE late Colonel *Cage*, who was ſeveral Years Parliament-man for the City of *Rocheſter*, in *Kent*, is ſaid to have got the greateſt Part of his Eſtate by Hops; for this Gentleman was allowed to be a very ſagacious, hoſpitable, diligent, honeſt Perſon, who would not deſpiſe an Opportunity of conſulting even a Beggar, if he thought he could get a valuable Secret out of him; for *Humility* is ſuch a Virtue, that, without it, there is little Chance of improving a Genius by Converſation. I have had many rich Secrets communicated to me by the mean Working-man; I may ſay, more from him, than from any of the greateſt Learning, becauſe the former diſcourſes from Facts, when the other does it from his Theory uncertain Philoſophy. In the Reign of Queen *Anne*, ſeveral got Eſtates by Hop-plantations, and deſervedly too; for then it was, that Sir *Tho. Hardles*, Sir *Tho. Knatchbull*, Col. *Denew*, and Col. *Lee*, of and near *Canterbury*; Col. *Cage*, of *Bareſtead*, near *Maidſtone*; Sir *Tho. Culpepper*, of *Ailsford*; Sir *Tho. Palmer*, of *Wingham*; and Colonel *Woodyer*, of *Shorne*, honoured their Country, by entertaining Friends and Strangers in ſuch a Manner, as made them not only beloved, but admired; for here their Pot of good, brown, ſtout mellow Beer was readily diſtributed in common; here their Servants had Liberty to treat a Friend, and therefore need not be upon their Guard at Hiring, as I knew a Man-cook was, who, upon bargaining for Wages, provided that he might have the Freedom to entertain a Friend with a Morſel, and a Bottle of Beer, as knowing, that, at his Maſter's Country-ſeat, a Cup of ſmall Beer was almoſt

moſt daily denied to many: Which is ſomething like the Caſe of a Tenant, that rented fourſcore Pounds a Year; who, having been at his Landlord's Seat three Hours together, returns back, and demands Victuals of his Wife in Haſte, ſaying he had neither eat, nor drank, ſince he had been out. That is hard, ſays ſhe; for, when any of his Servants come to the Farm, we ſet Victuals before them, and they may do both. But to return to my Subject: The aforeſaid Colonel *Cage*, whom I knew, built ſuch a large Oaſt-kiln, as contained eighteen Feet ſquare, for drying his Hops; and he has dried three hundred Weight at a Time on it; whereas the common Kilns are only ten Feet ſquare, that will dry but eighty Pound Weight at a Time. Another Kiln, near *Town-Malden*, is made and turned with *Hog Brick-work*, as it is there called, containing thirty Feet in Length, and eleven wide; over this Kiln the Hair-cloth lay, ſix Feet three Inches above the Fire, and employed three Charcoal-fires at a Time. But the famous Cockle-oaſt-kiln, that I have deſcribed in my Chapter of *Saffron*, exceeds all others for the ſweeteſt and moſt regular Manner of drying Hops, which is the greateſt Difficulty in the Art; here they ought to be laid very even on the Hair-cloth, and not above ſix, or eight Inches at moſt, thick, for, if they are not dried regularly, ſome Hops will be over-dried, while others are underdried. In both Extreams, the Hops will loſe that true Colour, that is ſo much wanted for inviting a Buyer, becauſe the over-done will appear brown, or burnt, and the other will loſe their Colour and fine Smell. The common Malt-kiln may be, and is often uſed for this Buſineſs; but, as Hops ought to be dried as ſoon as can be done after Picking, a common Kiln has ſeldom Room enough to diſpatch any great Quantities; therefore, in ſome Places, they build ſmall Kilns

near

near one another for this Purpoſe. The *Dublin* Society obſerves, that ſome have propoſed it, as an Improvement, to cover the Floor of a Kiln with double Tin-plates; by which Contrivance, they ſay, the Hops will be leſs injured in turning them here, than on a Hair-cloth, where they are apt to ſhed their Seed on being turned; and any Fewel will ſerve, the Smoke being carried off another Way. And, in Order to avoid any Occaſion of turning the Hops at all, it is further propoſed to provide a Frame of Wood, covered with Tin-plates, as broad as thē Top of the Kiln, and ſo contrived, as to let down within a Foot of the Hop, more or leſs, at the Time they are ready to turn, which is to reflect the Heat back on the Top of the Hops; by which Means the Top of the Hops will be as ſoon dried, as thoſe at the Bottom. But theſe Tin-contrivances are ſeldom or never uſed. And it has been obſerved, that Hops, dried in the Sun, loſe their rich Flavour, as other Herbs do, that are dried that Way. But what Kiln ſoever Hops are dried on, ſhould be a ſmall Matter heated, before the Hops are laid on the Hair-cloth, and an even Fire kept afterwards to prevent the Scorching of the Hops into a burnt Colour and Smell, rather increaſing it towards the End of their Drying, leſt the Sweat, that has been raiſed, remain on the Hops, and diſcolour them. After they have lain a ſufficient Time on the Kiln, that the Sweating is over, which, perhaps, will be in ſix or ſeven Hours, more or leſs, and they jump in beating with a Stick, turn them upſide down; or fling them up in a Heap in the Middle of the Hair-cloth with a Shovel, and then ſpread them all over even again, for two or three Hours, till they are all thoroughly dried; then in the Hair-cloth carry them into the adjacent Chamber to lie, till they be put up in Bags.

Hops

Hops are dried enough when their Stalks are ſo brittle as to break ſhort on rubbing; or it may be known when they crack or leap a little, which they will do on the Seeds Burſting; when ſo, take them from the Kiln, for this Charcoal is the beſt Fewel, becauſe the Smoak of Wood, Straw, Fern, *&c.* ſpoils both their Colour and Smell; therefore Coak-Charcoal, or *Welch* Coal, are beſt for this Purpoſe. Some recommend the Thermometer to prove the exact Degree of Heat, and it is a good Way; but common Workmen truſt to their Skill.

When Hops are begun to be dried, the Buſineſs ſhould be carried on with all Diſpatch, Night and Day, that, the Kiln being full hot, you may ſave Fewel and dry the Hops with the greater Certainty. Here a good Workman obſerves never to turn Hops while they are in a Sweat, leſt they burn, and loſe their Colour; before you turn them, keep a ſlow Fire, and, after Turning, renew the Fire as before.

When Hops are laid in a Chamber from the Kiln, they ſhould here remain in Heaps, to ſweat for three or four Days; by this they will get rough and feel oily in Hand.

CHAP. XXIX.

Of Bagging HOPS.

IF Hops were to be put from the Kiln directly into the Bag, they would all break into a Powder and be ſpoiled; therefore they ſhould be covered with Blankets from the Air, let lie a While, and then bagged. Now, how long they are to lie under Cover, the Dryneſs or Moiſture of the Weather in a great Meaſure decides, three, four, or five Days, more or leſs, may be requiſite.

To

To know when they are fit for Bagging, feel whether they are moiſt or clammy, by ſqueeſing them in the Hand; if they are, they will bear Treading, and, the harder they are trod, the better they will keep.

When they bag Hops, they make a Hole in the ſame Chamber the Hops lie, about two Feet, and two, three, or four Inches wide; when this is done, tie near half a Pound of Hops with Packthread to a Hoop, a little larger than the Hole, that the Mouth of the Bag may reſt here, and its Bottom not touch the Ground.

When this is done, the Hops are to be put in a Buſhel or two at a Time, and trod down, by a Man in the Bag, as hard as poſſible, and ſo on, by freſh Supplies of Hops put in from Time to Time by a Man or Boy in the Chamber, till the Bag is trod full; then untie the Mouth and ſow up the Bag, leaving four Knobs of Hops tied at the four upper Corners, for the better removing the Bag at any Time afterwards.

After the Hops are bagged, they ſhould be laid in a dry Place, for all Wets and Moiſture are an Enemy to their Preſervation: A boarded Floor and a Room cloſe enough to keep out damp Air is beſt; and even here, if the Situation be a Clay, or lies near much Water, the Bags ſhould be kept in a Chamber free from Mice or Rats, who would gladly make a Neſt to breed in, if they could.

After one Year's Keeping, Hops grow worſe and worſe, and accordingly are ſold cheaper, for by Age they will loſe both Colour and Vertue.

CHAP.

CHAP. XXX.

Of the good and ill Qualities of Hops.

HOPS are ſaid to have no Succedaneum, becauſe no Ingredient comes up to their Goodneſs for palating and preſerving of Ale or Beer, provided they have a right Management given them in brewing Malt-Liquors; it is according to this that the Hop may be made to anſwer in a wholeſome and pleaſant, or in an unwholeſome and nauſeous Manner.

The Hop is certainly endued with an acid Quality, and therefore, if uſed wrong, will prove very unwholeſome to many Conſtitutions, in particular to thoſe troubled with the Gout, Rheumatiſm, Gravel, and Stone; with the Heart-burn, and Cholic; but, if rightly uſed, the Hops will be ſo far from being offenſive, that they will become cordial.

I am ſenſible that they are wrong managed by moſt public and private Brewers; by the firſt, becauſe they are for making them go as far as poſſible, in extracting out all their Bitterneſs, in order to ſave the Charge of a greater Conſumption of them than is uſual.

It is this that often cauſes them to boil Hops too long in both ſmall and ſtrong Worts, for, in making of ſtrong Beer, many common Brewers are forced to boil it at twice, becauſe their Copper is not big enough to boil it at once; here then, if the ſame Hops are boiled in each Piece of ſtrong Wort, it will occaſion the Fault.

In great Coppers, Hops are boiled in the moſt vehement Manner poſſible, commonly an Hour and a half, or two Hours, at a Time: If two

Hours in one Piece of Wort, it is four Hours in both, but I will ſuppoſe it only three Hours in all; then it is too long by two Hours and a half, for I do aver it from repeated experimental Truths, that whoever boils Hops above thirty Minutes in Wort does wrong, by cauſing them to give the Drink an unwholeſome unpleaſant Taſte in ſome Degree; which I prove as follows, *viz.*

Let a Perſon boil a Pound of Hops in a Barrel Copper of Wort only half an Hour, in a very ſmall maſhed Net or Canvas-bag, allowing them full Room in the ſame, and then take them out, but boil the Wort on till it breaks, he will find (if the Hops were good) they have left a pleaſant bitter Taſte behind them, which will accompany the Drink to the laſt; but, let ſuch a Parcel of Hops be boiled in ſuch a Quantity of Wort an Hour and a half or two Hours, I am ſure he will find a great Difference in the Reliſh and Taſte of the Wort; and if ſuch Hops are afterwards boiled on in ſmall Beer Wort an Hour or more, I will engage, they will give ſuch a ſmall Beer Wort a horrid earthy Taſte, almoſt enough to provoke Vomiting in ſome People.

I knew a common Brewer obſerve it as a Maxim, that, by long boiling a ſmall Beer Wort, it would become the ſtronger, becauſe a great deal of the watery Part flies off in Vapours by Length of Time, that is, two or more Hours Boiling; for by ſuch long Boiling, all Drink, in a great Meaſure, is diveſted of thoſe flowery ſpirituous Parts of the Hops, that are perfectly neceſſary to maintain it in a pleaſant and wholeſome Condition.

As to the private Brewer, I am of Opinion, he is chiefly guilty of this Miſtake through ignorance, becauſe few of thoſe have a Notion of the Benefit of boiling Hops a little While in Wort to make the Drink better, nor will but few People ſuffer themſelves to be convinced, that it is ſo, ſo great is the Prejudice of Cuſtom!

It is to be hoped, in Time, that People's Eyes will be ſo opened, as not to lay out their Money in Drinks wherein Hops are boiled too long. If this happens, Brewers will be obliged to conſume more Hops, perhaps one or two Pounds in ſix more than they commonly do: And as there are many and greater Plantations of Hops made within theſe few Years laſt paſt, more than ever before, and many more like to be; there is no Doubt but Hops will be cheap enough to encourage their greater Conſumption, after the Manner I have been writing of.

If then the brewing and keeping Parts are rightly performed, I am perſuaded we ſhall, at moſt public Houſes, meet with ſuch good Malt-liquors as will preſerve our Bodies in Health, inſtead of deſtroying greater Numbers than the Sword does, as it is commonly believed bad Malt-liquors do.

CHAP. XXXI.

Of St. Foyne *and* Clover.

HOW to get a Crop of St. Foyne *a Year ſooner than in the common Way.* It is practiſed in ſome of the adjacent Parts of St. *Albans* to

ſow four Buſhels of St. *Foyne*-ſeed on each Acre of Land among Wheat-ſeed in this Month. The Way of doing it is, as ſoon as the Wheat-ſeed is ſown Broad-caſt, to ſow likewiſe the St. *Foyne*-ſeed Broad-caſt on the Broad-lands, and then to harrow both in together. By this Piece of good Huſbandry a Farmer gets a Crop of St. *Foyne* a Year forwarder than uſual. A fine Improvement indeed! And the better, for that the Land at this Time is prepared for the Wheat-crop in the higheſt Perfection by a fine Tilth and good Dreſſing, which will cauſe the St. *Foyne* Roots to ſtrike into the Earth with great Expedition and Vigour, and grow as much in one Year, as it would in two, if the Seed was ſown in the Spring-ſeaſon, and yet not hurt the Wheat, for the St. *Foyne*-roots run ſix Times deeper and more the firſt Year, than the Wheat does: Beſides which, as the St. *Foyne*-ſeed is ſown with the Wheat-ſeed about the Beginning of this Month, it will eſcape the Fly, Slug, Froſts, and Droughts more ſecurely than if ſown in the Spring-time, for it will take ſuch Root before the Severity of the Winter comes on, as will enable it to withſtand the Violence of the rigid Seaſons, and is ſeldom damaged by them.

Sowing Clover-ſeed with Wheat. By the ſame Rule, Clover-ſeed may be ſown Broad-caſt with the Wheat-ſeed in Broad-lands, the Beginning of this Month, and give you a Chance of enjoying a Crop after Reaping-time; for, by cutting the Straw high in Harveſt, there may very likely be a Crop of Clover high enough to mow afterwards and become tolerable Hay, but not indeed ſo good as if it grew alone, becauſe the Stubble will mix. However, if it will not anſwer to mow for Hay, it may feed Cattle ſome Time with-

without Danger of having it damaged by their Teeth, as Clover often is that is ſown in the Spring-time; for, by thus ſowing it in *September*, it takes ſo faſt Root, that they cannot hurt it. Though I muſt own that the ſowing of Clover at this Time of the Year among Wheat, is not of that Importance as the ſowing of St. *Foyne*; for by ſowing Clover in the Spring-ſeaſon, according to the common Way, it will do very well. This, therefore, to every one's Fancy.

CHAP. XXXII.

Of the Orange-pear-tree.

THE Excellency of the Orange-pear *for Farmers Uſes.* As I have, in laſt Month at Page 100, given an Account of the excellent Service the large early Parſnip-apple is of to a Farmer in the Time of Harveſt; I ſhall here, according to my Promiſe there, write an Eſſay of the like great and valuable Service a right Sort of Orange-pear is of to the Farmer in the ſame Seaſon of the Year. And, ſurely, ſo it is, becauſe this Tree ſeldom ever miſſes of producing a Crop of large Orange-pears, that are ripe in the Month of *Auguſt* or the Beginning of *September*. But, before I proceed to give an Account of the ſeveral ſerviceable Uſes of this Pear, I ſhall take Notice of the Tree itſelf, and give a Deſcription of one that grows in my Orchard, very near my Farm-yard, where my Cows, Horſes, Hogs, and Poultry have free Acceſs all the Year: This Tree, very probably, may have been planted here one or two hundred Years ago, rather more likely, to be of the latter Age than the firſt, becauſe,

becauſe, according to the Obſervation of myſelf and others, there ſeems to be no Alteration in it for theſe twenty-five and more Years paſt, that I have been Owner of it; nor can I learn, there has been in any great Degree in the Memory of the oldeſt Man in our Neighbourhood; and, I can affirm it, that, about three Years ago, no leſs than eight Men and Women lived at one Time near my Houſe that were reputed to be eighty Years old, and ſome of them more; for you muſt know, we breathe in ſo thin an Air on *Gaddeſden*-hill, that Phyſicians have declared, they thought it the thinneſt and beſt Air they ever met with. And, indeed, for the Sake of a healthy Air and fine Proſpect or Landſkip, that ſeveral Parts of our inland Country afford, and the Nearneſs to the Metropolis, landed Eſtates, in many Places of it, are valued and ſell for a Year or two's Purchaſe extraordinary; for even our Copy-hold incloſed Upland Meadow Ground, at the Will of the Lord, ſells for near forty Pounds an Acre; and our incloſed arable Land, that is Copy-hold, at the Will of the Lord, ſells for above twenty Pounds an Acre. But, to return to my Subject; the Tree, I am writing of, was firſt planted very high, as all ought to be on a hilly Soil, which conſiſts of a loamy Surface, twelve, eighteen, and twenty-four Inches deep, lying over a rank red Clay that continues the ſame twelve or more Feet lower, and then the chalky Rock begins, which to our *Gaddeſden* Farmers ſerves inſtead of Marle, for all our hilly Fields are compoſed of a ſtiff moiſt Loam, now and then mixed with a little Clay. This Chalk, ſtands our Friend to a very great Degree, in ſweetening and drying our wettiſh Land, and improving it to that Degree for near twenty Years together, that it rids us of Twitch-graſs and many more pernicious Weeds, and, at the ſame Time, with half

the

the Plowings, that before Chalking were employed. It helps us to plentiful Crops of Corn and artificial Graſſes with a little Aſſiſtance of other Dreſſing or Manure; and it is with this Chalk, after it is ſlaked by the Weather and the Help of Virgin-mould, that a Foſs in our Ground ought to be firſt prepared before a Fruit-tree be planted in it; for, if a Fruit-tree is directly planted in a Hole in the natural Earth on our Hill, the Conſequence will certainly be a ſtunted Tree, few and ſmall inſipid Fruit, and a quick Growth of Moſs about all its Body and Boughs, as appears at this Day in ſeveral of our Orchards, planted by our Anceſtors, inſomuch that one Gentleman in our Parts, a few Years ſince, was obliged to be at the Coſt and Trouble of ſtocking up conſiderable Numbers of Apple and Pear-trees, becauſe they were planted ſo deep as to languiſh, rather than improve in their Growth and Fruit; a great Loſs indeed! For it muſt be twenty Years, before an Apple, Pear, Walnut, or Cherry-tree, can be ſaid to bear a tolerable Quantity of their Species. However (fortunate for me) as it happened, this Orange-pear-tree was planted ſo high at firſt, that it every Year would throw out great Numbers of Suckers from its Roots, which, if let alone to grow, would ſpoil the Growth of the Tree and Fruit; but we carefully obſerve to nip or cut off theſe ſpontaneous Shoots in their Infancy, and ſo are delivered from the Miſchief that otherways would enſue. This large Orange-pear-tree is one of the higheſt and biggeſt Pear-trees in our Country, ſo high that we have hardly a Ladder that can thoroughly reach its Top; which is the Caſe of one of my black Cherry Trees, that grows within thirty Feet of this Orange-pear-tree, whoſe Top is ſo high that I could not get any Cherry-gatherers to venture up for gathering all its Fruit

Fruit this Year 1742. And this my every Year's Loſs has obliged me to an Intention of Shortening its Head next Winter, to prevent the like Damage for the Future. And now I have once more digreſſed from the Subject of the Orange-pear, I ſhall here take Notice of a particular Accident that befel this very high black Cherry-tree ſome Years ago, when a Ball of Fire paſſed through my Gate-way (accompanied with a vehement Thunder-clap) into my Orchard, and there firſt aſcended, and then was thought to deſcend on the Tree, which it rent, and ſo ſcooped, as it were, this large Tree, as to take near a fourth Part of its Trunk intirely off, leaving a black ſcorching Colour on the Outſide of the Wood, and a very ſtinking ſulphurous Smell behind, for ſome Time afterwards; yet this ſame Cherry-tree commonly bears many Dozen Pounds of large black Cherries every Year, and is like to do ſo for many Years to come, becauſe the Rent did not much hinder its bearing Quality; and I hope the Cutting of its Head will no Ways diminiſh the ſame, if it is done about the latter End of *December*, when the Sap is moſt ſtagnated and denſified. But, to return to the Orange-pear-tree, that has ſo large a Head as to give Room for twenty or thirty Buſhels of Pears to grow on it in ſome fruitful Years; and this Year, I believe, would have had more, had not its old Head been intirely cut off about forty or fifty Years ago, which my Predeceſſor was adviſed to do, to get rid of old rotten moſſy Boughs that had been neglected cutting and trimming for many Years before, ſo that the old Head grew ſo thick, as to bring forth poor little Pears, that were not (as far as I could underſtand) above half as big as thoſe that afterwards grew on the new ſucceeding young Head; for, after this total Lopping, the Tree was twenty Years,

Years in Growth before it got a large Head again, ſo that now it has a very extenſive clean young Head (contrary to the old Proverb) on an old Pair of Shoulders. And now follows, in Courſe, an Account of the ſerviceable Properties of this excellent Pear. To begin with the firſt, I can write, that it is a middle-ſized Pear, that is, not a ſmall one, nor can I ſay it is of the large Sort. Its Colour, when ripe, is yellowiſh, ſomewhat like that of an Orange. Its Bite ſoft and juicy; its Taſte ſo pleaſant, that it tempts to Gluttony. Its Flavour has a ſmall Share of that of the Cheney-orange; its Durability is ſhort, for it will not keep hardly two Months after Gathering, if ſo long; but its Uſe does not altogether conſiſt in the raw Bite, it has other good Properties; for this Pear is no leſs valuable for its making Pyes and Paſties ſo good, that it may be ranked among the beſt of Pears for this Purpoſe, becauſe it bakes fine and red, ſoft and pleaſant, yielding a good Juice in Pye or Pot, is extremely nouriſhing, and, in ſhort, ſerves the Farmer and his Family, in ſome Degree, ſo well as to ſave Meat, Bread, and Drink, and this in Harveſt-time, which makes this Pear of double Value. And yet, beſides all theſe Encomiums of Praiſe that I have juſtly given this Pear, I have farther to add, that this Fruit, if maſhed and ſqueeſed in the Cyder-preſs, in a right Time, will yield a great Plenty of Juice, and ſuch as will make a very good Perry for drinking in a little Time, ſo much like an Orange in Smell, that if a Perſon holds his Noſe over the Bung-hole, while the Liquor is fermenting, he will find the Scent to be very much like that of an Orange, as I have often experienced; and, if Coſt and Care is beſtowed upon this fine Perry-drink, it may be improved and kept many Months to great Advantage.

But the main Service that this Pear does to the Farmer, is (like the Parſnip-apple I have before-mentioned) in ſaving him a conſiderable Expence in buying Cheeſe in Harveſt-time, for Cheeſe is ſuch a neceſſary, convenient, and wholeſome Food to our Men, that we are obliged not only to ſend ſome to them in the Field Morning and Noon, but they eat wholly on this and Bread at one Time of the Day, which they call their *Beaver*, and this is commonly about four of the Clock in the Afternoon; at the eating of which they ſeldom are above a Quarter of an Hour from their Work; and this is willingly allowed them by the Farmer, as a Refreſhment. And ſo it is, with about half a *Pint* Cup round of good nappy Ale, that enlivens their Hearts, and enables them to go through with Chearfulneſs the hard ſtooping Labour of Reaping early and late. Now the Expence of what they call their *Beaver*, or *Cheeſing-time*, is very much leſſened by our Country Houſwives making Turn-over Paſties with this Sort of Pear, clear of all Charges of Sugar, which moſt other Pears require; for this Orange-pear is ſuch a *Dulco Acid*, and ſo agreeable of itſelf, that there needs nothing of ſuch an Addition; and, as they are thus made, they become eaſily portable, and ready on all Occaſions and at all Wants to ſupply in a great Meaſure the Place of Bread, Meat, Cheeſe, and Drink, for the natural Coolneſs of the baked Pear anſwers the laſt little or more, and the Body or fleſhy Part of the Pear ſuſtains Hunger, and at the ſame Time very much nouriſhes the Workmen by its eaſy, digeſtive, and glutinous Quality. To conclude this Chapter, I muſt farther add, that this Pear, thus dreſſed, in the Shape of a two-cornered turn-over Paſty, is ſo far from being refuſed, that the Harveſt-men rejoice, when they can enjoy ſuch Food, and, inſtead

of

of Cheeſe, count it an agreeable, nay, a pleaſant Repaſt.

Farther Obſervations on the profitable Quality of this Orange-pear. There are ſeveral Sorts of what are called *Orange-pears*, in our Country; ſome very ſmall, others larger, ſome round, others long in Shape; but I know of none that comes up to the ſeveral beneficial Qualities of this Pear I am writing of. Accordingly, I would recommend this Pear as a moſt excellent Sort, to be grafted in *February* or *March*, on the wild Stock, the Quince Stock, or the White-thorn, and this with a great deal of Earneſtneſs, becauſe no Farmer nor Gentleman ſhould be without it, that can conveniently have it; and for which Purpoſe I am ready to ſupply any Perſon with Scions or Grafts for increaſing, and furniſhing their Orchards with this noble, neceſſary, and pleaſant Fruit.

CHAP. XXXIII.

Of BEES.

HOW many Hives of Bees were deſtroyed by Waſps in the Year 1742. The dry latter Part of this Summer has been the moſt fatal Time to Bees known in the Memory of Man, occaſioned by their Arch-enemy the Waſp, which were ſo numerous, that Butcher, Grocers, and others, employed great Part of their Time in killing them in Defence of their Goods: But above all, it was theſe miſchievous Inſects that did the greateſt Damage to Bees, becauſe their Numbers were ſo great as emboldened them to attack the Bees in and out of their Hives in a moſt furious Manner, and where

they got the Aſcendant or Victory, they reigned Maſters; devoured the Honey of the Combs, and obliged thoſe Bees that eſcaped to ſeek out for a new Lodging; and though Waſps reigned but a ſhort Time in this Summer, that is to ſay, from the latter End of *July* to the Beginning of *September*, yet, in the dry Weather that happened in that Interval, they got ſo ſtrong as to multiply in great Abundance, ſo that, in one Bank of a Hedge of mine, there were ſeveral Holes or Neſts of Waſps at very little Diſtances, by which they bred ſo faſt as to kill many Hives of Bees; and thoſe Bees, that got the better of the Waſps, were forced to fight in a terrible Manner, and in ſo cloſe an Engagement with the Waſps, as even to hang on them; and, where there was Strength enough, the Bees brought them to the Ground and overcame them. Nor do I know of any other Remedy for preventing the Waſps, than to kill them, or applying of Vials of Verjuice, or Ale, as I have mentioned in laſt Month.

How to get the Wax out of the Combs for ſelling it to the Hawker or Wax-Chandler. As I have in laſt Month wrote a large Account of Bees, I ſhall here farther obſerve what I then omitted. Our Country Houſewives, to get all the Wax out of the Comb, boil them in Water a conſiderable Time, even ſeveral Hours together, till they think they have boiled all or near all out, and then they take them out of the Pot and put the Combs into a hair Bag; then, with a Rolling-pin, they beat and ſqueeſe them, till they think they have got all the Wax clean from the Combs, and, as they ſqueeſe them, the Wax drops into a Pan of cold Water, which will cauſe the Wax, like Greaſe, to ſwim at Top; and, when it is cold, it may be taken off in a Cake, and alſo that on the Top of the Water wherein the Wax was boiled.

Of

Of Feeding Bees in this Month for their Preſervation the following Winter and Spring. Here I am to obſerve that Bees have now got into their Winter-quarters, and ſhould be well regarded by their Owner, to find out what Hives are ſo light as to give a Suſpicion of their Want of Store, ſufficient to ſubſiſt them till the Weather, the next Spring, admits them to fly abroad, and recruit their Proviſions. But there are hardly any that pay ſuch a Regard to their Bees in this Month in our Parts. Nay, there are many that will not feed their Bees even in the Spring-time, becauſe they are poſſeſſed with a Notion, that Feeding them cauſes them to be idle, and hinders their Working a-pace; and, when they do feed, it is only with Sugar juſt moiſtened with ſome Beer, which they convey into the Hive at the Tee-hole in an Eldern Scoop; and this they ſeldom do before *Candlemas*, when they begin to feed their Bees in this Manner every Day, till they can fly abroad and get enough to live on; but, if they would be more their own and their Bees Friends, they would boil four or five Pounds of Honey with a Pint or more of Water, and give a little of this Mixture every Day all this Month, to thoſe Bees whoſe Hives feel too light to ſubſiſt all the Winter and next Spring without Help; and this may be conveniently done in a Plate that is eaſily thruſt in at the Bottom of the Hive, out of which they will take and carry it into their Combs, for ſecuring them a Living till they can fly abroad next Spring. And now I ſhall conclude this Chapter of Bees with the following Remarks written by a Country Miniſter.

Remarks

Remarks on Bees by a Country Miniſter.

———" They ſay (ſays he) that every Hive is " a Pattern of a well governed Common-wealth, " that there are a Queen, the Nobles, and the " Commonalty, acting all in their ſeveral Places, " and the Meaneſt doing their Duty, with as " much Chearfulneſs as the greateſt. There are " no Murmurers nor Complainers amongſt them; " no Schiſmatics nor Separatiſts, but all unite " their Power for the promoting one common In- " tereſt, and truly this is the ready Way to pro- " ſper and flouriſh. Would to God, we Men " were but as wiſe, either in Church or State. " Whether our Governors do their Duty or not, " is not mine to judge; this is but too manifeſt, " that we Subjects do not ours; for we are every " one of us driving on ſeparate Intereſt, as if we " were not of one and the ſame Nation; and we " divide in Matters of Religion, as if we were " not Members of one and the ſame Church, as " if we had not one Lord, one Faith, one Bap- " tiſm, one God to ſerve, and one Hope of Sal- " vation."

CHAP. XXXIV.

Of incloſing Common Lands.

OF the juſt and unjuſt Incloſing of Commons, and of the Advantages and Diſadvantages ariſing thereby. In this Place I intended to write on the great Advantage of incloſing Common Ground, and how a Common in the Weſtern Out-parts of *Surry* was ſo well contrived in its being incloſed by Act of Parliament, that both the Commoner and the

the Lord of the Mannor, the rich and the poor Man, rejoiced in the Alteration, becauſe the Scheme was ſo cleverly laid as to make the Whole anſwer to their mutual Profit. On the Contrary I alſo intended to write on the great Diſadvantages that have ariſen from the unlawful and unjuſt Incloſing of Common Lands from the Poor, who had a proportionable Title with the greateſt Farmer, and yet have been intirely excluded from ſuch their juſt Right for ever, by the Lord of the Mannor's privately bribing a few of the chief Inhabitants to obtain their Conſent. And likewiſe to have hinted of the remarkable Judgments that have followed thoſe, and their Families, that have been guilty of ſuch horrid Wickedneſs; for, as ſuch Commons lie continually kept incloſed, they are continually aggravating this heinous Sin of depriving the Poor of their Paternal Inheritance and Ewe-lambe, and therefore conſequently muſt be continually breeding Curſes on thoſe and their Poſterity, that have been the Authors of ſuch unlawful and unjuſt Incloſures. This, as I have been informed, made a great Man ſay, when he heard of a terrible Judgment that befel the Family of one whoſe Anceſtors had incloſed Commons from the Poor, that it was the Commons that did it. Two Lords of Mannors that had each a Right to a large and valuable Common, whoſe grazing Land was worth twenty Shillings an Acre, one of them did all he could to get his Part incloſed, and at laſt carried his Point, while the other was ſo conſcientious as to refuſe incloſing his Part, and ſo it remains open to this Day. A rare Example of Goodneſs! For, according to the Verſe:

There is a Curſe lies hard againſt all thoſe,
Who turn large Commons into ſmall Incloſe.

Mean-

Meaning, that when Commons are unlawfully and unjuſtly incloſed (as I ſhould endeavour to make appear by publiſhing what learned Divines have ſaid on this Matter) they then entail a Curſe on the Aggreſſors and their Poſterity. *O Reſtitution! Reſtitution!* It is amazing to me to think, how a rich Man can be guilty of committing ſuch a glaring, leiſure, wilful, wicked, idolatrous Action, that continually cries againſt him for Vengeance, and that neither he nor his Heirs can be diſcharged from, without making plenary Reſtitution to his injured Fellow-creatures, if he or they are in a Capacity of doing it. But, for Want of Room here, I muſt defer it to another Opportunity.

FINIS.

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